

**Individual Comments and Theme Responses**

*Alphabetical by sender's first name*

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<b>Sender Name (Submission ID)</b>	1854 Treaty Authority (42968)	
3058	Regardless of how this issue is described or strategically worded in the document, it is our understanding that the project will require long term/perpetual monitoring, maintenance, and treatment. We would argue that a timeframe of potentially hundreds of years should be considered perpetual rather than long term. This will not constitute a site that is maintenance free at closure.	PER04
3111	Under the proposed project, it appears that long term (perhaps perpetual) water treatment, site maintenance, and monitoring will be needed after closure to protect the environment and meet water quality standards. We don't believe that this meets the goal of a maintenance free closure, which is required under MN Rule 6132.3200...Regardless of how this issue is described or strategically worded in the document, it is our understanding that the project will require long term/perpetual monitoring, maintenance, and treatment. We would argue that a timeframe of potentially hundreds of years should be considered perpetual rather than long term. This will not constitute a site that is maintenance free at closure.	COOP01, PER04
3113	Effectiveness of the proposed water treatment and seep collection methods are vital to the project meeting water quality standards. Analysis and design detail are lacking in the SDEIS as a whole. More detail is needed on water treatment and seep collection, including long-term operation and maintenance, since they are essential components of the project meeting environmental standards.	COOP01, PD35, WR019, WR128, WR143, WR144, WR148
3114	The seep collection system is modeled to have a capture efficiency of 90%. Description is needed on how this efficiency rate was determined. We question if such a high capture rate can be achieved, and it would be helpful to include examples and citations of other projects operating seep collections at that efficiency rate. Further, if such capture rates are not achieved, impacts to water quality and quantity should be described in the SDEIS.	COOP01, WR018, WR020
3115	Concern also exists over the methods used to estimate Partridge River baseflow (Section 5.2.2.2.2). XP-SWMM model estimates of Partridge River baseflow presented in the SDEIS have been found to be three times lower than observed values. The XP-SWMM projections, which are based on data from 17 miles away collected from 1978 to 1987, do not align with the rating curve from recent Minnesota Department of Natural Resources (MDNR) winter monitoring data, or the results of the Great Lakes Indian Fish and Wildlife (GLIFWC) projections taken from two years of recent data from the Dunka Road gage in the XP-SWMM model.	COOP01, WR003, WR175
3116	Additional analyses should be performed and included in the SDEIS that investigate how the XP-SWMM model predictions may change with using the new baseflow measurements for the Partridge River to calibrate the model, and how that may affect the MODFLOW and GoldSIM model predictions.	COOP01, WR003, WR091, WR165
3118	It is our understanding that MODFLOW modeling does not account for any water to move east from the tailings basin. The head differential between the tailings basin and surrounding elevation may push water through the east side of the basin, potentially forming a lake. Significant uncertainties exist with groundwater flows and related contaminated water transport.	COOP01, WR093
3119	We disagree with the conclusion in the SDEIS that the PolyMet project will not have any impacts on surface or ground water hydrology in the Partridge and Embarrass Rivers (Section 5.2.2, page 5-8). Augmenting stream flow to tributaries with treated and Colby Lake water will impact surface water hydrology.	COOP01, WR107, WR183
3121	We believe that the interaction of the project's impacts with natural variability in precipitation would be more adverse than reported in the SDEIS. This is because effects of climatic variability are additive to the project-related change, which would be especially true for drier periods.	COOP01, WR077, WR180
3123	It is also noted in section 5.2.3 (Wetlands) that indirect effects on wetlands are expected due to groundwater drawdown. Groundwater drawdown will impact groundwater hydrology and it's connectivity to the surficial aquifer, which will likely impact surface water hydrology.	COOP01, WET15, WR053, WR086, WR166

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<b>Sender Name (Submission ID)</b>	1854 Treaty Authority (42968)	
3124	Currently, the wild rice water quality standard is not being met in portions of the Embarrass and Partridge river systems. The SDEIS states that the wild rice sulfate standard would be met for the Embarrass River, assuming the containment and seepage collection system would capture seepage presently going to the Embarrass tributaries. However, the Partridge River will exceed the standard during low-flow conditions. We question how this will be handled in permitting.	COOP01, PER10, WR152, WR154
3125	According to SDEIS, PolyMet is seeking seasonal application [April 1 through August 31] of the standard during non-mechanical water treatment after closure. If seep collection and water treatment do not work as planned (substantial assumptions without a lot of detail), the seasonal discharge may become a larger issue. The SDEIS states that this is beyond the scope of the document, but we believe that it is relevant to the project meeting water quality standards and is an issue to be addressed.	COOP01, WR153
3126	We do not believe the proposed project will result in a decrease in mercury loading to the Embarrass and Partridge River aquatic systems (Section 5.2.2.3.4). For the Embarrass River, we do not believe that: 1) the tailings basin will function as a mercury sink; and 2) mercury methylation would decrease due to projected reductions in sulfate contributions. Regarding flows of the Partridge River, Embarrass River, or their tributaries, we disagree that the project would not significantly impact flow and water level fluctuations, thus leading to increased mercury methylation and bioaccumulation, which taken together may be sufficient to impact habitat leading to alterations of species composition, food web structure, and ultimately mercury bioaccumulation.	COOP01, MERC06, MERC20, MERC23
3128	Potential mercury contributions from peat stored at the Overburden Laydown and Storage Area have also not been addressed.	COOP01, MERC20
3134	Mercury-related concerns are present for created wetlands at the East Pit and mercury concentrations in water discharged from the West Pit.	COOP01, MERC09
3135	Air-related mercury emissions do not account for sources from energy generation or vehicle use at the site.	AIR02, COOP01
3136	For the Lake Superior watershed, any additional mercury releases to the environment are exacerbating already existing impairments including fish advisories set for recreational fishing. Increased fish mercury levels will also have direct impacts on both the cultural and recreational resources of the region.	AQ11, COOP01, MERC02
3137	Indirect impacts to wetlands from mine pit dewatering (866.9 acres with high likelihood of wetland hydrology effects (Zone 1)) may be underestimated as a result of using the analog method described in the SDEIS (Section 5.2.3.2.2). We do not feel the proposed analog method of assessing potential indirect impacts from mine site pit dewatering is adequate, and as such should not be the sole means of indirect impact assessment for the SDEIS.	COOP01, WET08
3138	We do not feel the impact zones and distances are well described, and do not agree with the automatic exclusion of ombrotrophic wetlands from potential drawdown effects. ...GLIFWC conducted an independent assessment using the same methods as the Co-lead Agencies, along with additional analog data from other mining-impacted sites. The assessment found an estimated total of 5719.75 acres of wetlands would be potentially susceptible to severe indirect impacts from mine pit drawdown (Zone 1).	COOP01, WET10
3140	We also disagree the Partridge River would act as a "natural barrier" to the cone of depression, which suggests that the riparian zone of the Partridge River will not be affected by groundwater drawdown (page 5-243). The upper Partridge River is located in Zone 2; GLIFWC's independent analysis estimated drawdowns of 3 to 5 feet under the river, which would severely reduce baseflow in the channel, indirectly impact riparian wetlands downstream, and affect other surface water features. GLIFWC's analysis should be considered in the SDEIS for estimating potential indirect effects on wetlands from mine pit dewatering. This would also have implications for the cumulative effects analysis presented in Chapter 6 (Section 6.2.3.4.4).	COOP01, WET10, WET18

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<b>Sender Name (Submission ID)</b>	1854 Treaty Authority (42968)	
3141	Much of the proposed mitigation (Aitkin and Hinckley sites) for directly impacted wetlands is outside of the watershed and 1854 Ceded Territory. This is a permanent loss to these areas and should be discussed in the document. Mitigation options within the watershed and 1854 Ceded Territory should be re-visited.	COOP01, WET03
3143	Upfront mitigation for wetlands susceptible to severe indirect impacts is currently not proposed, and we believe that the USACE should require up front mitigation for all severely impacted wetlands. We also contend that additional up front mitigation should be considered for wetlands that are classified in the moderate to severe category, with robust monitoring being required for wetlands in the moderate category.	COOP01, WET01, WET02
3144	Section 5.2.9.2.2 (Wildlife) does not contain information on game species such as moose, deer, grouse, waterfowl, furbearers, etc. These species are important to the Bands for the exercise of treaty rights, and further analysis is needed.	COOP01, CR01, WI09
3145	This section also contains language about "1854 Treaty Authority-regulated species". We suggest removing or altering this language. The Fond du Lac Band also exercises treaty rights in the 1854 Ceded Territory, and has their own regulations. Further, the 1854 Treaty Authority maintains seasons and limits on some species, but these are not the only species of importance.	COOP01, EDIT01
3146	The project would result in one more piece of the 1854 Ceded Territory permanently altered and impacted. When taken in combination of all the mining operations across the Iron Range and other general development, the Ceded Territory and related exercise of treaty rights have been significantly impacted.	COOP01, CR01
3147	The SDEIS states on page 4-340 that subsistence activity (including hunting, fishing, and plant gathering) accounted for approximately one meal per week among the survey respondents... Our interpretation and analysis of the results would likely show an increased consumption rate from what is reported in the SDEIS.	COOP01, SO09
3148	The SDEIS also states that harvest for all species (including big game and trapping) have generally declined since 1994. We believe that this statement is inaccurate and also seems to minimize the importance of the exercise of treaty rights.	COOP01, SO04
3149	In addition, this section focuses only on harvest activities regulated and reported by the 1854 Treaty Authority, and does not include the exercise of treaty rights by the Fond du Lac Band.	COOP01, CR01
3150	The SDEIS essentially contains no analysis on moose. This issue has been raised by the cooperating agencies a number of times throughout the EIS development process. Given this listing [on August 19, 2013], and the cultural importance to the Bands, the SDEIS should analyze project impacts to moose and also consider it from a cumulative impacts perspective.	COOP01, WI01
3151	Stating the economic benefits of the project, while not stating economic costs to resources and related uses, does not allow for a fair comparison or overall view of the project. Environmental economic tools do exist to value resources and the services they provide, and perhaps some would be applicable and beneficial for the SDEIS.	COOP01, SO04
3152	The document states that there will be a net increase of up to 579.6 acres for the Superior National Forest. Any gains or losses in federal ownership will not be known until the values of all the proposed lands in the exchange have been determined. The proposed exchange loses one large tract of public land for several smaller tracts. The project also results in permanent impacts and changes to the resources regardless of ownership. These issues should be clearly identified in the SDEIS.	COOP01, LAN03
3153	The SDEIS also puts too much emphasis on the current lack of access to the Forest Service lands (Section 3 .1.2.1, page 5-579). This is seemingly done to minimize the impact of losing it.	COOP01, NEPA12

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<b>Sender Name (Submission ID)</b>	1854 Treaty Authority (42968)	
3154	Access to the specific public waters and wild rice associated with the land exchange (Pike River, Hay Lake, Little Rice Lake) is currently available. Adjacent land ownership is not a direct impact to this access because wild rice is in public waters that are currently accessible. The SDEIS does not paint an accurate picture to say that the land exchange will result in additional wild rice beds, that there is currently no opportunity to harvest wild rice directly on the federal lands, or that the public would have better opportunities for wild rice harvesting (Section 5.3.4.2.1, page 5-609).	COOP01, VEG04, VEG08, WR155
3155	page 5-591 states that the proposed land exchange would result in a net increase of wild rice beds to the federal estate. Wild rice in these locations are found in public waters (and would not be on federal lands or under federal ownership/management) and are currently accessible through an access on the Pike River. Some resource protection advantages may exist to gaining adjacent federal ownership as it relates to land management.	COOP01, VEG08, WR155
3157	We do not agree that the project and proposed land exchange would increase habitat availability because even the with land exchange, the overall result of the project is permanent impacts, loss, and changes to the resources of n011heastern Minnesota and the 1854 Ceded Territory (Section 5.3.5, page 625).	COOP01, WI02, WI03
3158	Regarding habitat availability and impacts from the proposed land exchange, there is no mention of effects on game species such as moose, deer, grouse, waterfowl, furbearers and others in Section 5.3.5.2.5 nor in Section 6.2.3.6 from the cumulative effects analysis.	COOP01, WI10
3160	We would suggest that the proposed School Trust Lands Exchange also be a consideration. The project would entail exchange, purchase, or some combination of both for the Forest Service to acquire the school trust lands within the Boundary Waters Canoe Area Wilderness.	COOP01, CU08
3161	We believe that limiting the cumulative effects analysis area (CEAA) for water resources (Section 6.2.3.3), wetlands (Section 6.2.3.4) and aquatic species (Sections 6.2.3.7) to the Partridge and Embarrass River watersheds is too small. These CEAA's should be expanded to include the St. Louis River watershed. Impacts associated with United Taconite's proposal for 1,200 acres of wetland destruction to build a new tailings basin within the St. Louis River watershed should be considered. The PolyMet project would add to the load of pollutants in the St. Louis River and would reduce tributary flows to the river. Impacts that may occur due to the project could be underestimated (due to modeling concerns), and would not stop before reaching the St. Louis River. Further, any added impact from the project to the St. Louis River watershed would in turn impact Lake Superior. We believe that this should be the appropriate scale to analyze cumulative effects for these resources.	COOP01, CU01, WR024
3162	We disagree with the conclusion that no cumulative effects to groundwater resources are expected (Section 6.2.3.3, page 6-16)...Cumulative effects at these locations should be assessed with the proposed project along with potential groundwater pollution from the Peter Mitchell Pit, Laskin Energy, Arcelor-Mittal, United Taconite, and US Steel Minntac.	COOP01, WR024
3163	A future action that should be considered in the cumulative effects analysis is any potential future backfill of Virginia Formation waste rock forin-pit disposal at the Cliffs Peter Mitchell Pit. Potential dewatering-related interaction effects between the proposed PolyMet Project and the Peter Mitchell Pit should also be evaluated for cumulative effects.	COOP01, WR024
3164	In Section 6.2.3.4.4 (Future Wetlands and Water Resources) wetlands that would be indirectly impacted from the PolyMet project (and other projects) should be considered for inclusion in the number of wetland acres lost.	COOP01, WET18
3165	In Section 6.2.3.10.4 (page 6-95), it should be clarified that the project would result in permanent impacts, changes, and loss within the 1854 Ceded Territory... No matter how the proposed project is viewed, it would result in a permanent loss or change to treaty guaranteed resources and the exercise of treaty rights...Further consultation required by federal agencies is needed to better understand effects to cultural resources, and to properly plan for avoidance or mitigation.	COOP01, CR01

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<b>Sender Name (Submission ID)</b> 1854 Treaty Authority (42968)		
3166	it is anticipated that Minnesota Biological Survey sites of High Biodiversity Significance would be decreased by 6056.4 acres on Superior National Forest lands.	COOP01, VEG02
3167	The SDEIS states that financial assurance requirements for the project are not included in the document, but will instead be determined during the permitting phase. We are concerned about this approach given the potential for long-term/perpetual treatment, maintenance, and monitoring that may be needed from the proposed project.	COOP01, FIN12, WR037
3168	The SDEIS states that contingency mitigation will not be included initially in the financial assurance package. Financial assurance must be monitored and updated as the project proceeds to properly cover site cleanup and closure.	COOP01, FIN11
<b>Sender Name (Submission ID)</b> 4095481751@vzwpix.com (4305)		
1800	America and the world will need these metals soon.	NEPA05
<b>Sender Name (Submission ID)</b> a s dorman (49088)		
16967	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
16969	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
<b>Sender Name (Submission ID)</b> Aaron Brasket (16895)		
14451	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR035, WR111
14457	If approved, this first-ever sulfide mine in Minnesota would open the door for future mines that would endanger the Boundary Waters wilderness.	CU04
<b>Sender Name (Submission ID)</b> Aaron Camacho (28831)		
13876	Being that I live just off the Mississippi River and down stream from this potential mine is disturbing knowledge. Any water affected by this mine will eventually make its way down stream to this area where I live.	WR111
13877	I am a concerned citizen of Wisconsin and Native American who feels this continual TAKING from the land for financial gain, will be our undoing.	SO02
<b>Sender Name (Submission ID)</b> Aaron L. Wittnebel (47268)		
9260	Instability of the industry; if the business collapses or goes bankrupt, won't it be the taxpayers left covering the costs of cleanup, unemployment, and reemployment?	FIN01

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**Sender Name (Submission ID)**    Aaron L. Wittnebel (47268)

9264 No health impact study has been conducted, and this industry has a propensity to be very dangerous to not just the health of employees, but to the general public in the surrounding area. If people become ill...the state as a whole will be left to care for those that become ill. HU01

9267 The proximity of the mining operations are very close to pristine and natural lands, that our state pride's itself on. They are natural wonders that draw people to come to Minnesota for our great tourism industry. What will happen to our state's branding, once mining is expanded and we destroy these attractions? LU06

**Sender Name (Submission ID)**    Aaron Poznanovic (54686)

17857 the proposed sulfide mine has grave forecasts...The largest wetland loss ever proposed by Minnesota by directly destroying 913 acres anddegrading 7351 acres through water and air deposition pollution, mine dewatering, and wetland water diversion. WET23

17858 the proposed sulfide mine has grave forecasts...Permanently degrading the pristine "1 00 Mile Swamp" and Partridge River Headwaters by altering the basic geochemistry of the system- ultimately increasing toxic heavy metal pollutants such as methyl mercury and reducing biological diversity. WR111, WR115

17860 the proposed sulfide mine has grave forecasts...Eliminating or degrading prime moose habitat. This is particularly concerning seeing that our state moose population has plummeted over the last decade. WI02

17861 The proposal will not meet the new sulfide standards specified by the Minnesota Pollution Control Agency (MPCA). PER10

17862 The proposal has no alternative that could reduce water pollution and wetland destruction. ALT06, ALT13

17863 [The Project poses] Unacceptable impacts on water resources and wetlands of both national and international importance. WET19

17864 As a resident of Grand Marais, MN, this proposal will directly impact my health and well-being as well as the ecological health of one of the most pristine environments in the country. HU01

**Sender Name (Submission ID)**    Aaron Vail (3039)

614 [The NorthMet Project is]... creating hundreds of jobs in a downtrodden and economically suffocated area of our great state... SO10

**Sender Name (Submission ID)**    Abbi Evans (54337)

17564 The water could be contaminated with sulphate, metals, and mercury. It can affect the following around it: bodies of water, wetlands, vegetation, wildlife, and many other environmental features. WR107, WR108

17565 It will be moving the earth, and will have visual obstructions, noise, and dust. N01

17566 If there are buildings on the land would either result in closure and/or demolition. This would result in people losing their jobs/businesses. SO02

17568 There can be some positive effects though too.1. To make everything run smoothly they will need to hire people, so then there will be jobs forpeople.2. The new resources: iron, copper and nickel.3. It will boost the economy. SO10

17569 Wildlife can be harmed, that includes animals on the threatened andendangered species list. WI01

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<b>Sender Name (Submission ID)</b> Abby Huset (54340)		
17444	Some cultural resources could be affected during construction and operations. The things that this could affect are, the sugarbush, a piece of sacred land of the Mesa be Widjiu, part of beaver bay, and a couple other things.	CR05
17445	I think that Minnesota can benefit from this mining process because of all the jobs it will provide and all of the money that it will bring in. Some advantages to this [PolyMet mine] process are ...1. make a lot of new jobs2. once we get the minerals then we can make more electronics and stuff we use in our everyday life3. it will make a lot of money4. they will grow the vegetation backSome disadvantages of this process are ...1. cut down forest area2. it may pollute the water3. it might affect some different cultural resources	SO10
17580	I do agree with the Land Exchange offers because if they don ' t do it here where will they do it. They have to do it somewhere why not here where we know how to make it safer and not pollute as much.	LAN11
17581	All these products (copper, nickel, platinum) are used in our everyday lives. A way this could affect us is if you don't mine we might start running low in those few minerals and they won't be able to make all of those things that we use everyday such as: electronics, batteries watch bands etc.	NEPA05
17582	Another thing is that even though they are going to cut down all this forest and vegetation, as soon as they are done mining they have to try and put it back so it is almost like what it was before.	VEG05
17583	A reason why a lot of people say that it would be a bad idea to mine is because they think it is going to pollute the surface water. What they might not know is that you guys do so much to make sure that it doesn't not, and if it does some how then you guys have an emergency backup to either stop it or make sure the pollution isn' t more than just a little.	WR190
<b>Sender Name (Submission ID)</b> Abdullah Ali (54169)		
16376	I don't like the idea of drilling to happen. Because after the mine is over the environment will be affected for a long time.	WR195
16377	These so much copper you can drill from other locations.	ALT09, ALT16
16379	It can also effect the animals who live near the area.	WI13
<b>Sender Name (Submission ID)</b> aboges1@gmail.com (44547)		
11767	Acres upon acres of our land and gallons upon gallons of our water all over this country are polluted ...the Boundary Waters Area WILL have negative effects on our environment, and it is not worth it for a little extra money and a handful of jobs.	SO01
<b>Sender Name (Submission ID)</b> Aby Wolf (38776)		
4874	Waste rock would leak and seep into the ground regardless of their "99% clean" promises, and it seems very shortsighted to believe that covering huge piles of waste rock with bio-tarp sounds to me like a very dangerous "sweep it under the rug" approach to clean-up.	PD03
4875	Contingency plans for accidents and mishaps are not adequately addressed in the SDEIS, nor is it clear who would be financially accountable for clean up years after PolyMet's business in the region ends.	FIN01, FIN05
4876	The land exchange proposed by PolyMet is not a fair deal-- Superior National Forest needs to keep that valuable land protected for generations to come.	LAN01

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<b>Sender Name (Submission ID)</b>	Aby Wolf (38776)	
16787	The economic boost to miners and small towns in northern Minnesota would be short-lived, unlike the inevitable pollution and contamination to the water and land of Hoyt Lakes and surrounding watershed.	SO01
<b>Sender Name (Submission ID)</b>	Adam (42981)	
8779	How does the land exchange assist the environmental sustainability of the mine?	LAN01
15186	Glencore Xstrata has a terrible reputation globally for avoiding taxes by producing “shell” corporations which they contact for purchase of materials....Why does the SDEIS not include reference to Glencore Xstrata? Why does the SDEIS not include Glencore Xstrata as a strategic partner?	FIN02
15187	As of Thursday, February 27, 2014, the [Minnesota Pollution Control Agency] has decided they will delay the release of their findings [from a 3-year study to determine if the established sulfate standard of 10 ppm should be adjusted]. The MN DNR also decided the same day that they would not review legal request to extend the SDEIS public comments period beyond March 13, 2014. What are the implications for adjusting the sulfate concentration standards on the decision to permit the copper-nickel mine? Why was the SDEIS public comment period not extended to allow incorporation of theMCPA findings?	NEPA07, WR152
15188	The mine site sites uphill and to the south of One Hundred Mile Swamp, which drains to Langley Creek, into the Dunka River, and ultimately to the BWCAW. There is a statement in Section 4.3.3 of the SDEIS that “no delineated boundary exists for the One Hundred Mile Swamp.” However, the US Government National Atlas shows that the One Hundred Mile Swamp drains by Langley Creek. At some point, all water is groundwater. What are the implications for stating that One Hundred Mile Swamp has “no delineatedboundary”? Will the next draft EIS include federal assessments?	WET19, WR024, WR080, WR081, WR111, WR175
15189	Minnesota DNR hydrologists Mike Liljegren correctly informs citizens that “the base flow is really the catalyst for everything.” It is the assumption of base flow that underlies the hundreds of complex computer models determining the estimates of, for example, 500 years required water treatment and 90% groundwater containment...The tribal community has contested in courts since 2008 that the PolyMet base water estimate is at least five times below the actual base flow. What are the implications for utilizing potentially flawed base water flow estimates established 10 years ago?	WR003
15190	What are the preparations for ensuring water models comply with the projections for increased precipitation in the area? What precautions are in the place in the event of a large precipitation event?	WR189
15191	Polymet asserts that contaminated seepage is no more than a “garden hose.”Without the MPCA sulfate standards decision, how can we know that this will not surpass acceptable levels?	WR163, WR164
15192	If the water is going to be contaminated enough that it needs treatment, and the basins are unlined, where is the information about how the ground will filter and clean this water before it enters surface water downstream?	WR070
15193	how much money PolyMet will have to set aside to reclaim the mine, treat polluted runoff and fix any major problems that develop even long after themine shuts down.	FIN05
15194	As far as I understand, the project is still in the public comment period. Why has the DNR “already started the process of getting ready for the permit applications”?	PER38

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<b>Sender Name (Submission ID)</b> Adam (42981)		
15195	a few dozen people could make millions of dollars (Glencore shareholders). A few hundred people could make thousands of dollars (~360 jobs). The rest of us (Minnesotans; water-drinkers; children; humans) would have to deal with sulfuric acid contamination in the most freshwater rich environment in the whole world.	WR115
<b>Sender Name (Submission ID)</b> Adam Benson (39720)		
6951	I sincerely hope that your agency thinks long and hard about the tradeoff between 20 years of mining jobs versus up to 500 years of needed pollution control. Not to mention it now appears only half the jobs will go to locals and this project could get canceled as soon as copper prices fall below the needed threshold to make it economic.	SO01
6958	Polymet has a “plan” but no proof they can do this without polluting the regions’ watersheds. I see they claim they will treat the tailings to take out the sulfuric acid content and use reverse osmosis water treatment. Yet it’s clear this has never been proven on an industrial scale. This is especially concerning when one considers the fact that this is a low grade deposit that will produce 99% waste rock.	PD03, WR128, WR143
6987	It appears there is no proposed trial run on a smaller scale for Polymet to prove this can work in a variety of conditions .... In the next 200 to 500 years we can be assured of some extreme weather including periods of flooding. How will their reverse osmosis treatment handle this?	PD03
6991	Are any alternate plans being considered that would utilize an underground mine where the tailings are kept well below the water tables?	ALT06
6997	It is my understanding that determining the financial assurance needed is not part of this initial EIS and comment period. ... Polymet says the ongoing treatment could cost \$3.5 to \$6 million per year and last 500 years. Using the midpoint of these estimates produces a liability of over \$2 billion not even accounting for inflation....there is no way your organization can claim to know what the assurance should be.	FIN05
7003	Since it’s clear this project will result in decades of pollution risk versus a 20 year limited benefit I propose not doing it at all.	SO01
<b>Sender Name (Submission ID)</b> Adam Ferris (7180)		
533	allowing this mine to proceed will only benefit all parties involved.	SO10
<b>Sender Name (Submission ID)</b> Adam Flett (19928)		
13947	I understand the DNR has conflicting motives, both set to make a profit and protect the environment, though I think the presumption that the PolyMet project, or any sulfide mining project can be done without public health issues is a dangerous one, and one that surely has a greater cost than what will come out in profits and tax revenue for the State of Minnesota.	HU03
<b>Sender Name (Submission ID)</b> Adam Sippola (57350)		
18370	The potential for acid mined drainage alone is reason enough to say no to this proposal. If not, we risk long-term pollution of the surrounding wetlands, lakes and rivers, including the St. Louis River that flows into Lake Superior.	WR107, WR108, WR111
18372	water cleanup following the mine's closure is estimated to last up to or beyond 500 years. It is hard to imagine PolyMet still existing by then, paying for continued cleanup of the water that will be polluted and poisoned if this mining project is approved. No. Instead, that responsibility will fall to the citizens.	FIN01, FIN10

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<b>Sender Name (Submission ID)</b> Adam Sippola (57350)		
18375	20 years of jobs, only 25 percent of which are estimated by PolyMet to be local jobs, cannot justify centuries of cleanup and billions of dollars in cleanup costs.	SO01
18376	As it is, Minnesota law calls for mines to be maintenance free after closure. And this proposed mine site is located in the Superior National Forest, where open pit mines aren't allowed anyway. We cannot begin making these kinds of exceptions for corporations at the expense of our natural environment and at the expense of pure, fresh water for generations to come. We must employ a longer view.	PER04
18377	The destruction of more than a thousand acres of wetlands at the PolyMet mine site would be the single largest loss of wetlands ever permitted in Minnesota.	WET23
18381	it is our responsibility as human beings to begin a trend away from catering to corporations and toward catering to our environment, including the wildlife, plants, land, water and human beings that are a part of it.	GEN03
<b>Sender Name (Submission ID)</b> Adam Swansom (7721)		
908	We loan PolyMet our land for 20 years, less than one generation's time, and they will leave it polluted for 500 years?	PD01
909	Experts who have studied other mining projects across the country said even those that start with financial safeguards can end up costing taxpayers millions of dollars. In Montana, they underestimated the volume of water needing treatment after a gold mine had closed, and state taxpayers had to create a \$34 million trust fund to pay for it. Northern Minnesota cannot afford a miscalculation of that magnitude.	FIN01, FIN05, FIN10
910	acid mine drainage kills fish, wildlife and plants, leaving contaminated waterways devoid of most living creatures. Mining by-products such as arsenic, manganese and thallium, have been shown to increase the risk of cancer and other illnesses in humans.	HU03, WR113
<b>Sender Name (Submission ID)</b> Adam Theis (45635)		
12844	Reject the Polymet mine. These mines that are only miles away, are in complete opposition to the ideals that make the BWCA what it is. These mines threaten the purity and integrity of the BWCA [ and incompatible with wilderness special area]	WILD02
12845	Unacceptable environmental risk. This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR111
<b>Sender Name (Submission ID)</b> adam wright (38312)		
13670	After reviewing the SDEIS and hearing experts on the topic, it is very clear that this company will be responsible not just in the present, but in the future. There is a way to mine these materials safely and Polymet has show that they can do it.	PD28
<b>Sender Name (Submission ID)</b> Addie Welch (57181)		
18661	Combined with other factors environmentally, economically, and socially, Polymet Mining is a dangerous idea that should not be executed in Minnesota.	SO02
<b>Sender Name (Submission ID)</b> Adele Martin (42723)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Adele Martin (42723)		
14354	The tax payers will be paying for the vast part of the clean up after PolyMet leaves. This happens all the time where mining companies have finished their dirty work.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Adrienne Beck (57226)		
17173	The proposed mine is in a very sensitive watershed area. The polluted water can enter ground water effecting rivers, ponds and Lake Superior.	WR111
<b>Sender Name (Submission ID)</b> Aidan Resh (44527)		
10680	I have concerns about your track record in maintaining ecological standards	PD23
10682	I appreciate your commitment to a five hundred year clean up plan, yet I have no assurance your company will even be around for that long	FIN01
10686	I get that there could potentially be some reforestation attempts assuming you hold yourselves to your proposed plan. What do you plan to do about the displacement of native species?	VEG05
10690	I believe it is the DNR's obligation to prevent companies such as this from destroying our nations largest investment.	PER35
<b>Sender Name (Submission ID)</b> Aitkin County, MN (21209)		
16718	There are no actions eligible for crediting identified. If the landowners are claiming partial drainage or farmed wetlands, they must provide the actual Farm Security Agency documents, plus a summation of the information, showing that they meet cropping history. The summary must include field-by-field information. There are conflicting statements in Section 15.2.3 and Attachment C. Section 15.2.3 states that the fields have been used for more row crops than Attachment C claims. Fields are referred to occasionally in the report, but no field map was provided. In addition, sod does not qualify under cropping history. This property is continually referred to as a sod farm or sod fields. Page 30 of the report states that the conversion to a sod farm was in 1998. At that point, most of the dikes from the former rice paddies were pushed into the ditch area. A copy of the Corps permit that details what work was allowed for their impacts to the ditches might provide additional information.	COE08
16721	There are a number of major issues regarding the drainage. Section 15.2.3 states that the fields have subsurface tile drainage. There is no map or drawing provided showing the tile layout. In addition, subsurface tile is not mentioned in Attachment C. In January, 2006, a Conditional Use Permit (CUP) was applied for to conduct peat mining on 40 acres of this property. At that time, the CUP applicant/representative stated that there were no tile lines in either site proposed for peat mining. The areas requested for peat mining were on the east and west sides of County Road 1. Also, because they have been significantly damaged, those areas should not be included in restoration unless the peat is returned to the site. The drainage on this site is listed as ditches spaced 700 feet apart. Figure 9 shows the ditches to be intermittent at best, and generally 1-2 feet deep. The potential restoration proposed at Zim has scope and effect calculations, but there are none for the Aitkin site. For example, at Zim, there is a 2.5 foot deep ditch that has a scope and effect of 60 feet and a 3' deep ditch that has a 65' scope and effect. The ditches at the Aitkin site are 700 feet apart and are shallower than the Zim site. How is this site drained? The scope and effect of a 2-foot deep ditch is not 350 feet. We understand that different soil types affect drainage, however, never to that extent. The applicant must provide adequatedocumentation of drainage. If there are tile lines that are being used, they must be shown to be working effectively. A detailed ditch and tile map and scope and effect calculations must be provided.	COE08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Aitkin County, MN (21209)	
16722	There is no wetland delineation for this project. A pre-restoration delineation is required. A copy of the delineation shall be provided to the Aitkin County TEP/LGU for approval. It will be ground-truthed in the spring. There was evidently water table information collected on June 5-6, 2007 (page 26). This is one snapshot in time; two days worth of information does not adequately represent a 933-acre site and may not reflect long-term conditions of the site. Also, on page 26, the report states "The water table appears to be near the surface throughout much of the general area, as indicated by the large wetland complexes underlain by muck and peat soils." This paragraph begins with a reference to the wetland restoration site being composed entirely of hydric soils. The information is very conflicting. The timing of the monitoring is not addressing the potential for having wetland hydrology near the surface during the wettest time of the year. We need copies of the monitoring that was done. Mapping conventions can be used to provide wetland delineation information. If the report is claiming that the hydrology is wetland, then, again, we need the cropping history to allow for any crediting under WCA. Also, the 1' contour should be provided in better detail than is shown on Figure 9. There are additional questions on the hydrologic monitoring. How were the monitoring wells installed? Are they meeting Corps standards? How were the wells distributed throughout the site? If a wetland delineation is not provided to the TEP/LGU for approval, the applicant must perform hydrologic monitoring for a minimum of 2 years before any potential crediting is discussed and before any alteration of the site is done.	COE10
16723	An unrealistic and unsustainable number of wetland types are proposed on one 933-acre site. There are ten types, plus upland buffer. These do not represent the original vegetation and it is unlikely that this number of wetland types is found on any other large wetland site in Aitkin County. Regardless of what is being impacted, the wetland types for this potential restoration must be altered to reflect neighboring reference wetlands and the number of wetland types proposed drastically reduced. What is the source for the seeding recommendations? What local reference wetlands were used for these seeding plans? Seeding recommendations prescribed by the Board of Water and Soil Resources (BWSR) should be used. Seed mix #2 should be used on the berm. The monitoring period of 5 years for the tree plantings is not adequate. The performance standards may be unrealistic. Only allowing 5% non-native invasive vegetation seems low. Is it realistic, or should it be somewhat higher (10%)?	COE08
16724	The plans to breach the diversion channel dike must get approval from the ditch authority. The information we have indicates that the diversion channel dike is specifically engineered to direct flow into the channel and not into the surrounding lands. The applicants are proposing a major change to how the City of Aitkin has benefitted from the diversion channel. Eventually a land alteration permit and probably Conditional Use Permit will be required in order to construct the berm around the homesteaded property and to complete all other earth moving activities. Are there any archeological concerns in the project area? There is no information discussing this issue. Is this project specific or banking? 300 acres are left over. The applicants must be made aware that they are restoring more than they can use and that it can't be used for impacts on other projects or phases.	COE08
<b>Sender Name (Submission ID)</b>	Akilah Sanders-Reed (58090)	
19906	Finally, the Tribal Governments have shown that the water models used by PolyMet contain errors which may have vastly underestimated the hydrological damage that will be incurred by the mine. The disastrous impacts are unknown, and it would be irresponsible to pass such a proposal.	GT01
19908	Further underlining the proposal's ecological incompetence is the U.S. Forest Service land exchange...those plants provide ecosystem services estimated to be worth significant amounts of money, performing tasks such as water filtration and retention, and soil protection. These resources are necessary for human occupation of connected ecosystems across the state of Minnesota...Our natural resources are not trivial niceties but necessities. Please decline the Poly Met SDEIS and avert the ecological and economic toll it would take on Minnesota's future.	GEN03
19950	No details are provided on how five centuries of water treatment will be financed. The operation, maintenance, monitoring, and reconstruction of these facilities for over five hundred years is massive liability and financial investment.	FIN01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Akilah Sanders-Reed (58090)		
19988	The plan readily admits that... millions of gallons of polluted water will seep off site, uncaptured and untreated. This is irresponsible natural resource management, as well as a serious human health threat.	GT01, HU03
20002	The SDEIS is insufficient and should not be approved.	NEPA09
20010	There are sustainable alternatives that, when externalities are factored in, would be financially beneficial: increased recycling rates, or an underground mine, have both been proposed.	ALT01, NEPA06
<b>Sender Name (Submission ID)</b> Al DeJuliannie (5979)		
1960	Idea for next meetings so it is fair is to have a box for people that want a chance to speak, one for Anti Mining and one for Pro Mining. Then pick speakers evenly from each box to give there comments.	NEPA11
1961	Also person picked should have to give there comments not like what I seen last night where the Anti Mining Group stuffed the Box and then would give there spot to one of there experts and we had to listen to the same lies over an over and I felt it ruined a good meeting.	NEPA11
1962	We need these good paying jobs on the Iron Range	SO10
1963	[The] whole country and world needs the metals.	NEPA05
<b>Sender Name (Submission ID)</b> al eisentrager (41739)		
3258	At a time when MN is starting to take a lead in preventing more pollution, this is just plain wrong. It doesn't matter how many jobs it creates, how much in revenue MN with get from it. It doesn't matter how many jobs it creates, how much in revenue MN with get from it.	SO02
<b>Sender Name (Submission ID)</b> Al Martin (43449)		
7205	There was no provisions to prevent Polymet from simply selling off their company's mining to other companies that may not have to follow the same rules. ... A huge "damage deposit" must be required.... It would be foolish to think that 50 or 100 years from now, if Polymet didn't return to address the problems, that Minnesota residents and taxpayers could simply send them a bill for any cleanup costs incurred by the people. Besides, at that point it would be highly unlikely that Polymet would still exist in a legal, solvent form, with sufficient cash reserves to pay for any such damages.	FIN01, FIN08
15719	These resources belong to the people of Minnesota, and if we leave them in the ground, they'll still be there later should we change our minds, or find more protective ways of mining. Any jobs from these mining activities, would soon dry up and be gone, just like the iron mining cycles. Once we mine it, the resources will be gone and we'll be back at square one.	SO01
<b>Sender Name (Submission ID)</b> Al Ringer (54690)		
17830	We are very concerned about acid mine drainage and it affecting the water supply for many years after a possible mine would close.	WR001
17831	If Polymet is permitted to operate, it will only open the floodgates for the multiple other companies that are waiting in the wings to see what happens here.	CU04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Al Ringer (54690)		
17832	I would like to see a very strict oversight on the water issues and assurances that there will be adequate funds to clean up the mess that is going to accompany any mining project.	FIN01
17833	My other issue is I think surface property owners should be notified when their property is put on the auction block for mining companies to bid on. Why should I have to hear about this from a neighbor who reads the auction sheets hidden in the journals of the DNR website? Mining companies seem to have all the power, and surface property owners, none.	LAN06
<b>Sender Name (Submission ID)</b> Al Rudeck (18079)		
3193	[The SDEIS]'s sophisticated modeling and engineered solutions proposed by the agencies and the company, in my professional judgment, will be enable PolyMet to perform at or beyond the stringent state and federal requirements to protect water quality on all fronts. In fact, the overall project will reduce background concentrations in sulfates and not increase them, as well as reducing mercury, and not increase them.	PD28
3194	[Mining jobs] provide basic living essentials for hundreds of families and I look forward to the prospect of job creation the PolyMet Project brings...	SO10
3195	They [jobs] provide basic living essentials for hundreds of families and I look forward to the prospect of job creation the PolyMet Project brings, and moreover, the high-quality metals to be produced representing important new and domestic sources of essential clean copper-nickel and other precious metals that fuel modern life, including wind turbines, hybrid vehicles and other modern necessities.	SO10
<b>Sender Name (Submission ID)</b> Alaina Kelley (58116)		
19929	I request that the SDEIS be rejected because it lacks accurate estimates of the economic costs of the proposed NorthMet sulfide mine. I see three potentially expensive side effects of the proposed NorthMet sulfide mine: 1. Active treatment of polluted water and other annual maintenance of the mine site and waste site for at least 500 years. 2. Known pollution resulting from untreated water that will be costly to Minnesota to clean up, or costly to leave polluted (loss of natural capital and health costs). 3. Expected pollution from the accidents that are most likely to occur in and around sulfide mines. SDEIS does not give a comprehensive estimate of how much these three side effects of the proposed NorthMet sulfide mine would cost. As a Minnesota taxpayer, I want to know if the potential benefits of the proposed NorthMet sulfide mine outweigh the potential costs.	FIN10
19930	I see three potentially expensive side effects of the proposed NorthMet sulfide mine: 1. Active treatment of polluted water and other annual maintenance of the mine site and waste site for at least 500 years. 2. Known pollution resulting from untreated water that will be costly to Minnesota to clean up, or costly to leave polluted (loss of natural capital and health costs). 3. Expected pollution from the accidents that are most likely to occur in and around sulfide mines. SDEIS does not give a comprehensive estimate of how much these three side effects of the proposed NorthMet sulfide mine would cost. As a Minnesota taxpayer, I want to know if the potential benefits of the proposed NorthMet sulfide mine outweigh the potential costs.	SO07
<b>Sender Name (Submission ID)</b> Alan Andreae (40380)		
12161	The jobs are disparately needed in the Arrowhead region of Minnesota and with the scientific research that has been done I see no reason permits shouldn't be granted.	SO10
<b>Sender Name (Submission ID)</b> Alan Engebretson (30200)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Alan Engebretson (30200)		
10991	the boundary Waters Canoe area of northern Minnesota, And Lake Superior, are too important to our environment to risk a mining of any sorts in that area. This area has been used for generations for people to enjoy the great outdoors and have clean water and beautiful forests.	WILD02
10992	Mining in this area would destroy something that cannot be replaced and pollute a beautiful Lake superior and its watershed.	WR111
<b>Sender Name (Submission ID)</b> Alan Janetka (27503)		
14746	Stop this erosion of our natural habitat which effects all of us and most importunately the wildlife which dies off because of contaminated water and foliage !	VEG06
<b>Sender Name (Submission ID)</b> Alan Knaeble (45114)		
8328	the former mine pits that will be used to store mined waste material will be over 600 feet deep into bedrock. Ground water that accumulates in these pits will be contaminated by waste rock and will move following the regional flow through bedrock fractures and will have the potential to affect the entire water system down gradient.	WR088, WR111
8334	The public comment period for reviewing a document of this complexity and size, over 2000 pages, is inadequate. I would suggest extending the public comment period for an additional 90 days to allow more time for reading through the document and formulating comments.	NEPA07
8337	There is no Financial Assurance Plan. It is imperative that a comprehensive plan be presented to the public before the public comment period is over and before a permit is issued.	FIN13
8350	Without addressing how PolyMet will avoid [environmental problems from sulfide mining] for this mine, what assurance do the citizens of Minnesota have that these same problems will not occur again.	SO04
16737	in this region ground water exchange between bedrock and glacial deposits is the norm. Lakes and streams are the surface exposures of the ground water, therefore they are interconnected with groundwater in the bedrock.	WR010
16738	If the PolyMet project is permitted as outlined in the SDEIS I believe pollution problems will be inevitable. The only questions in my mind will be. How severe and how wide spread?	PD22
16739	There is no Financial Assurance Plan. It is imperative that a comprehensive plan be presented to the public before the public comment period is over and before a permit is issued. As tax payers each Minnesotan may have to foot the bill if expenses due to remediation of mining problems are not adequately covered by a detailed Financial Assurance Plan.	FIN13
<b>Sender Name (Submission ID)</b> Alan Muller (47778)		
8632	Further, it is clear that several other copper-nickel mining projects are projected in the area...Looking at the NorthMet project in isolation violates basic principles of environmental review and cannot give us a trustworthy indication of cumulative impacts.	CU04
8633	The SDEIS fails to recognize the probability that the NorthMet project would expand in size and duration subsequent to permitting.	PD30
8635	The SDEIS fails to consider the impacts of...electricity generation on the scale required to extract and process the volumes of ores projected...How many megawatt hours are involved and what would be the source? The impacts of generation....?	PD39

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Alan Muller (47778)		
8636	The SDEIS lacks a meaningful evaluation of alternatives.	ALT06
8637	[T]he present SDEIS fails to conform to the letter or the intent of the Minnesota Environmental Policy Act and the National Environmental Policy Act.	NEPA08
<b>Sender Name (Submission ID)</b> Albert van Daalen (21127)		
1943	The Polymet project will create at least 1,000 jobs. Which is a conservative estimate in my opinion. The State of Minnesota will get substantial revenue. The surrounding communities will also benefit as PLM Management shows clear interest of community projects.	SO10
16240	For those who oppose Polymet operations they should consider that mining of copper is vital and that instead of importing from countries that do not have environmental standards equal to those in the US that mining is better done in the US.	NEPA05
16241	With regards to environmental concerns, Polymet is committed to providing adequate financial assurance.	FIN16
<b>Sender Name (Submission ID)</b> Alex Andrea (45471)		
11464	THE SDEIS DOES NOT TAKE INTO ACCOUNT THE WATER POLLUTION THAT WILL RESULT IN POLLUTION OF RIVERS: THE SDEIS DOES NOT TAKE INTO ACCOUNT SEEPAGE INTO THE GROUNDWATER: PolyMet's own plan shows that millions of gallons of water will seep "offsite," untreated, during usual operations. There is no way it can adequately guard against toxic pollution of the St. Louis River watershed, and Lake Superior itself, from pollutants such as copper, lead and sulfates.	WR042, WR064, WR081, WR107, WR108, WR111
11466	THE SDEIS DOES NOT TAKE INTO ACCOUNT AIR POLLUTION:	AIR11
11468	THERE IS INSUFFICIENT FINANCIAL ASSURANCE: The SDEIS is inadequate with regard to the financial assurance required of the company to protect the state of Minnesota and its taxpayers. ... Once the pollution occurs, Minnesotans can only engage in "reclamation"--a poor substitute for not polluting in the first place	FIN01
<b>Sender Name (Submission ID)</b> Alex Barbeau (15744)		
11945	I do not believe that the SDEIS fulfills the requirements of the Clean Water Act or Clean Air Act.	PER26
11946	The mercury and sulfide emissions have in no way been proven to be mitigated by the proposed tailings pond technology over a 200-500 year period.	MERC06
11949	I find the studies showing that wild rice, a protected species, will be negatively impacted to be reprehensible in light of treaty obligations to the various tribes.	VEG04
11952	I also find the menger financial assurance details in the SDEIS alarming given that cleaning is estimated to last twice as long as this county has existed.	FIN13
17036	The lack of an adequate much less accurate water flow study casts the whole of the SDEIS into doubt.	WR003

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Alex Barbeau (15744)		
17038	the broader impact on tribal resources...point to profound repercussions on the future ability of the [Bands] to use, enjoy, and thrive within the boundaries of the...Ceded Territory.	CR01
<b>Sender Name (Submission ID)</b> Alex Christensen (41568)		
6364	The proposed project poses significant, unpredictable, and functionally indefinite environmental health risks to both the humans and other biota of the area.	HU03, WI04
6367	I understand that proponents of the mine routinely cite the influx of jobs and taxable income that would boost the area's economy. I think that is a naive assessment of what this mine would accomplish over time. For starters, the mine, if all goes exactly to plan, will not be around forever. What happens when it must close? Additionally, I have not heard a satisfactory explanation of how polluted water, earth, and air might be treated in a fiscally responsible and ethical [manner].	FIN10
<b>Sender Name (Submission ID)</b> Alex Comb (6445)		
1077	From what I have gathered the proposal is offering what may become 20 years of employment and profit from this mining venture while it is suggested monitoring of the mining may be necessary for up to 500 years. This alone does not suggest a favorable balance.	SO01
1078	Should sulfur pollution occur it could greatly impact this economy as well as possibly impacting the forest products economy of the area.	SO02
1142	I think it would be great to see the LTV site back in operation and a boon to the economy that the construction and operation of the proposed NorthMet mining operation would bring.	SO10
1143	I fail to see how during the mining process these aquifers are protected from contamination of the sulfides exposed in the mining process. The rock is obviously exposed to the air, which makes it reactive and the addition of water when it rains makes it seem likely to lead to contamination of the aquifer.	WR001, WR090
1144	The proposal of returning the waste rock, which is still reactive, to the pit also seems poorly determined. This would seem to be putting highly acidic water into the unlined pit, allowing for an even greater chance of contaminating the water table.	WR001
1145	The plan seems to rely also on using reverse osmosis to treat the effluent. There is a good track record with some of these treatments, though mechanical difficulties can obviously lead to over-flows that would need to be addressed.	PD03, PD22, WR143
1146	What is most troubling is that there is an implied admittance that sulfides are a long-term contaminate. I see nowhere it is suggested that the wastes are ever to be rendered neutralized.	PD05, WR060
1147	It is very difficult indeed, to look down the road 200 to 500 years. .... To think that this mine could be effectively monitored for that time period seems ludicrous at best. And what would the land use in this area be within that time period?	PD05
1148	And what would the land use in this area be within that time period? I don't think we can effectively imagine that, though given what looks like long-term global warming and obvious population growth it would seem this land would be valuable for human development.	LU02
<b>Sender Name (Submission ID)</b> Alex Heegaard-LeGros (47036)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Alex Heegaard-LeGros (47036)		
10935	There is not a realistic long term storage plan for the mine tailings; the current plan has huge ground water seepage risks due to inadequate computer modeling based on optimistic best case scenarios... We are talking about at least 500 years of waste storage so we should be talking about containment systems based on worst case scenarios.	WR128, WR189, WR202
10936	the Polymet Mine EIS allows risk to our fragile moose population, unique wild rice supply, local long-term tourism economies, local tribal economies and communities, and in general the Minnesota that we are leaving to Minnesotans hundreds of years into the future.	SO02, VEG04, WI01
16504	The current models are based on lower than usual water levels; a unusually wet year (which seems likely when we consider our changing weather due to climate change) could overwhelm the containment systems and lead to incredibly expensive and possibly irreversible groundwater and surface water contamination.	WR057, WR176, WR180
16505	In addition, these problems are likely to occur after Polymet has moved on/been turned into another company to protect the owners from financial liability.	FIN01
<b>Sender Name (Submission ID)</b> Alex Reich (43206)		
9002	With 1 in 10 MN newborns in the Lake Superior basin born with unsafe levels of mercury in their blood (according to the MDH), we must make sure that the proposed mine and the associated energy production facilities that will be the source of energy to the mine and processing plant do not cause health harm to the population.	HU01
9010	I question whether we as a state (or as a DNR) will ultimately (especially in the 500+ year timeline) want to promote [this project] in a the Arrowhead/Superior/ BWCW region, an area central to our economy (with \$1.6B of nature-based tourism annually) and to our state identity. These are important factors that have not been addressed by the current EIS process, even in the cumulative impacts sections.	CU11
16158	We must make sure that the mine does not negatively impact the health of locals (especially tribal communities whose psychological wellbeing depends on wild rice and other water-related phenomena), or of others in the state.	HU02
16159	The unprecedented public involvement in this EIS process indicates that it is important to the people of Minnesota. Improved though the public involvement process for this EIS was over others in the past, I know that not all Minnesotans who wanted to be involved were able to participate.	NEPA10
16160	Whether through a programmatic environmental impact statement review process, a state-wide voter referendum, or another method, please determine whether sulfide mining in the Duluth Complex will be beneficial to the long-term interests of the state, and whether the majority of Minnesotans support it.	CU19
<b>Sender Name (Submission ID)</b> Alex Swingley (43716)		
15093	This is our home. We have nowhere else to live. Do not ruin our earth for a man-made concept known as currency.	SO01
<b>Sender Name (Submission ID)</b> Alex Ventrelli (54212)		
17657	I don't think you should mine near the boundary waters because it kills aquatic life and the water gets polluted and the ecosystem will be destroyed.	AQ05
<b>Sender Name (Submission ID)</b> Alexa Mcdowell (27966)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Alexa Mcdowell (27966)

14736 Although I respect the position presented by residents of the Iron Range whose livelihood has, for generations relied on mining, I have serious concerns about the plan to develop sulfide mining in northern Minnesota. SO02

14737 The threat to the state's natural resources is very real and the specifics of the plan for a longterm response to potential contamination are vague at best. Too many questions remain unanswered. PD01

**Sender Name (Submission ID)**    Alexander Rosen (27564)

14743 Please do not allow the destruction of the Boundary Waters and Lake Superior to take place. The loss of the health of these great places is NOT worth the dollar amount that will be gained from this sulfide mine. SO01

**Sender Name (Submission ID)**    Alexandra Jane Vagac (57140)

16835 PolyMet’s Mining proposed NorthMet sulfide mine fails to meet four common sense clean water principles: keeping MN’s water safe and clean, putting safeguards in place for when things go wrong, leaving the site clean and maintenance free, and protecting MN taxpayers FIN10, FIN14

16836 Furthermore, NO sulfide mine has ever operated without polluting its nearby waters. WR023, WR113

**Sender Name (Submission ID)**    Alexis Berke (11531)

2482 ...I am worried about the length of proposed water treatment (200-500 years) after mine closure. How will the state of Minnesota be assured that PolyMet can meet the financial requirements to continue to treat waste water? This is an irresponsible legacy to leave future citizens of our state. FIN01

2482 ...I am worried about the length of proposed water treatment (200-500 years) after mine closure. How will the state of Minnesota be assured that PolyMet can meet the financial requirements to continue to treat waste water? This is an irresponsible legacy to leave future citizens of our state. FIN01

2483 After reading about the rejection of the underground alternative, I am also disappointed that the economic value of clean wetlands was not considered. In a state with much outdoor recreation – snowmobiling, fishing, hunting, canoeing – the value of our forest is great – and provides revenue to local communities. A single private corporation’s profit, should not trump the value of our public water resources. ALT01, ALT06

2483 After reading about the rejection of the underground alternative, I am also disappointed that the economic value of clean wetlands was not considered. In a state with much outdoor recreation – snowmobiling, fishing, hunting, canoeing – the value of our forest is great – and provides revenue to local communities. A single private corporation’s profit, should not trump the value of our public water resources. ALT01, ALT06

**Sender Name (Submission ID)**    Alice Duggan (50929)

16472 We might want to protect [water] from sulphide mining; it is unlikely that we can. In such a vulnerable area as the Boundary Waters, it is beyond foolish. WILD02

16473 I would like to see some of our tax money to be funneled into NEW development for the Arrowhead region. I would not like to see out tax dollars spent on repairing tragic damage to wetlands and aquifers [due to mining]. SO01

**Sender Name (Submission ID)**    Alichia Greenlee (18348)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Alichia Greenlee (18348)		
14630	PolyMet project is a great asset to our community. Their safe technologies and their (inaudible) processes, they will be providing (inaudible) services, as well as, even more importantly, jobs for our state.	SO10
14632	We need these resources, and the more we can get responsible operators, the better off we can be.	NEPA05
<b>Sender Name (Submission ID)</b> Alicia Newell (40703)		
14191	I understand that this is a tough issue but we are at a major crossroads. We have to make a major shift and stop this path of destruction.	PER35
<b>Sender Name (Submission ID)</b> Alison Aune (44879)		
17382	[The project] would destroy 1,450 acres of designated critical habitat for the Canada Lynx, habitat essential to the conservation of a threatened species. We must not allow the fragmentation and loss of habitat for moose, Canadian Lynx, and other wildlife.	WI02
17384	Wild rice is sacred to the Ojibwe people, and is a symbol of our state.	CR01
17385	Wild rice beds downstream of PolyMet would become polluted with toxic sulfates. Millions of gallons of untreated polluted water will escape every year, and the mine plan predicts an increased chance that water exceeding the sulfate standard will be released at times, years after closure.	WR149, WR156, WR162
17387	How can we risk the need for extensive water treatment of our waterways for hundreds of years? Who would pay for the cleanup? Taxpayers would have to pay for this and I do not support the huge cleanup bills when sulfide mining companies have declared bankruptcy or walked away from closed.	FIN01
17390	Exposure to air and water pollutants like mercury, asbestos-like fibers, and arsenic would have a significant impact on local communities. I have listened to the physicians who have spoken out against this mine to the very real health dangers it poses.	HU03
17391	PolyMet would be a huge consumer of electricity, using some of the dirtiest coal power plants in Minnesota. PolyMet would emit 707,342 metric tons of carbon dioxide into the atmosphere every year.	AIR02
<b>Sender Name (Submission ID)</b> Allan Blais (54161)		
16054	Who will pay for the hundred year cleanup after this company is long gone?	FIN01
<b>Sender Name (Submission ID)</b> Allan Frink (18303)		
4159	[PolyMet] wanted to put the rock in there and cover it with water, so it doesn't have oxygen, but there is oxygen in the water. The water fluctuates through the ground, depending on how the aquifer moves. Stuff is going to go into the aquifer. They're not even looking at that. They're saying the water can't do that. If water can flow one direction, it can flow the other way.	WR010, WR029
4160	I haven't seen anybody talking about how they are going to have the mercury that is in that rock and all of the other stuff, because there is all of the hard metals in it, too. That's why there is gold and the platinum, because there is lots of them. The problem is because it is low volume. But when you start crushing it all up, to powder like for makeup, which is what they crush that at, that's what they did for the taconite, too, all of that stuff is released.	MERC20

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Allan Frink (18303)		
12295	So, that's exactly what will happen here if they are not getting enough of this stuff out. The Swiss company is going to say, "We're not giving you any more money." And of course they won't have nothing. There won't be anything there to do any treatment or any repair.	FIN01, FIN02
<b>Sender Name (Submission ID)</b> Allan King (16918)		
11020	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Allen Killian-moore (11579)		
2236	[SDEIS preparers] have not, to my mind, substantially addressed who will monitor.... regulate, and hold accountable the operations involved in the mining and pollution process. And the years given for water treatment are on an estimate. We really have no way to determine how accurate said estimates are.	FIN01, FIN05, FIN06, WR035, WR129
2236	[SDEIS preparers] have not, to my mind, substantially addressed who will monitor.... regulate, and hold accountable the operations involved in the mining and pollution process. And the years given for water treatment are on an estimate. We really have no way to determine how accurate said estimates are.	FIN01, FIN05, FIN06, WR035, WR129
2911	I think the SDEIS inadequately addresses workers safety and inadequately addresses ground water pollution issues	HU04
7773	I would like to note that, while SDEIS has estimated that cleanup of pollution ... will last for hundreds of years, ... not, ... addressed who will monitor, regulate, regulate, and hold accountable the operations involved in the mining and pollution process.	FIN01, FIN11
7773	I would like to note that, while SDEIS has estimated that cleanup of pollution ... will last for hundreds of years, ... not, ... addressed who will monitor, regulate, regulate, and hold accountable the operations involved in the mining and pollution process.	VEG04, WR156
18495	I would like to call for a 500-year comment period instead of 500 years of downwater pollution.	NEPA07
18496	I think the SDEIS inadequately addresses workers safety and inadequately addresses ground water pollution issues. And I think we need more time to look at those things.	HU01
<b>Sender Name (Submission ID)</b> Allen Oberg (47195)		
8804	Polymet should go ahead with providing upfront evidence of complete insurance coverage in event of a pollution incident with their mining operation...	FIN01
<b>Sender Name (Submission ID)</b> Allen Richardson (11613)		
2290	The potential greenhouse gas emissions from the PolyMet sulfide mine and processing facility are staggering. Including the fossil fuels burned to run the vehicles on site and the plant, potential carbon dioxide equivalent emissions would be 707, 342 metric tons per year according to SDEIS pg 5-405.	AIR01
2290	The potential greenhouse gas emissions from the PolyMet sulfide mine and processing facility are staggering. Including the fossil fuels burned to run the vehicles on site and the plant, potential carbon dioxide equivalent emissions would be 707, 342 metric tons per year according to SDEIS pg 5-405.	AIR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Allen Richardson (11613)		
1291	Over a 20-year mine plan, PolyMet would emit 15,790, 752 tons of CO2 equivalent pollution, more than 10 million tons from burning coal to run it's processing. (SDEIS pg 5-406). The PolyMet project should not be permitted without substantial changes to reduce emissions. The SDEIS should be redone to compare alternatives that reduce CO2 emissions, starting with changes in vehicle fuel and reduced reliance on coal power.	AIR02
2291	Over a 20-year mine plan, PolyMet would emit 15,790, 752 tons of CO2 equivalent pollution, more than 10 million tons from burning coal to run it's processing. (SDEIS pg 5-406). The PolyMet project should not be permitted without substantial changes to reduce emissions. The SDEIS should be redone to compare alternatives that reduce CO2 emissions, starting with changes in vehicle fuel and reduced reliance on coal power.	AIR02
2523	The SDEIS should be done with more comparatives and alternatives that would reduce Co2 emissions, starting with changes in vehicle fuel and to reduce our reliance on coal power	AIR02
14621	The potential of greenhouse gas emissions from the PolyMet mine, sulfide mine and processing facility are staggering, including the fossil fuels burned on site to run the plant.	AIR01
<b>Sender Name (Submission ID)</b> allene burns (40088)		
15266	This is too hazardous to consider drafting the MpolyMet Mine in northern Minnesota. We have too many fragile natural plants and animals to say nothing for the environment as well, to consider this risky endeavor.	VEG10, WI13
<b>Sender Name (Submission ID)</b> Allete (54719)		
18519	Mining in general and PolyMet in particular are vital to the economic health, prosperity and vibrancy of northern Minnesota and northwest Wisconsin. Development of natural resources, including the rich bounty of minerals and timber in our region, has been the bedrock of our region's economy forwell over a century.	SO10
18526	The metals that will be mined by PolyMet are critical to renewable energyproduction and other clean technologies. Copper is used in copious amounts in the wind turbines at our growing Bison Wind Energy Center in North Dakota. Other metals that will be extracted by PolyMet are used in emission control equipment at our Boswell Energy Center in Cohasset. Copper is a key ingredient in solar energy installations as well as in catalytic converters for automobiles and computer technology, not to mention the wires we use to deliver electricity to homes and businesses everywhere. Why import these minerals when they can be mined and processed right here in Minnesota?	SO10
18533	We have faith in the institutions we rely upon to make surenon-ferrous mining never endangers the world-class environment we hold dear.	PER34
<b>Sender Name (Submission ID)</b> Alliance for the Great Lakes (22327)		
3357	In light of Lake Superior's unique status as a major resource for drinking water, food, wildlife habitat and cultural heritage, we urge the co-leadagencies to reconsider their decision to exclude [Lake Superior and the St. Louis River]... from the cumulative impacts analysis...	WI08
3365	the SDEIS concludes the project will not have cumulative negative impacts on water quality, giving the impression that the NorthMet mine will improve water quality. This is not the case when one considers the rivers and their downstream lakes and wetlands individually.	WR024, WR115
3374	The SDEIS does predict a net decrease in mercury loading to the Partridge River from 24.2 to 23.0 grams per year. This amounts to about a 5% decrease. ... Even if the project would reduce the amount of mercury from existing sources in the Partridge River, we do not accept that it is appropriate to use this decrease as an offset for increases in mercury loadings in the Embarrass River due to the proposed project.	MERC18

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Alliance for the Great Lakes (22327)	
3376	The negative impacts the project will have on individual downstream lakes and tributaries to the St. Louis River and Lake Superior and the potential to impact the St. Louis remedial action plan support the need to expand the CEAA for water resources.	WR111
3382	The SDEIS does not include adequate consideration of how climate change may affect the cumulative impacts of the NorthMet project on water resources consistent with Council on Environmental Quality (CEQ) draft guidelines. ... The CEQ guidance clearly states that an environmental impact statement should consider climate change in a variety of contexts, not just in terms of greenhouse gas emissions.	WR180
3389	Section 6.2.3.8.10 describes the project’s cumulative impacts on climate change, but only in relation to greenhouse gas emissions. A more in depth discussion of these “predicted increases” [(SDEIS at 5-221)] to temperature and precipitation and how they may impact the NorthMet project would help the co-lead agencies and the affected community better understand the project’s long-term implications and would better conform to the CEQ draft guidelines.	AIR01
3391	The SDEIS should consider additional alternatives for the category one waste rock pile and the emergency overflow channel to reduce harmful runoff and dust emissions.	ALT11
3402	we are concerned with the proposed decision to leave the category one pile uncovered for 13 years, as currently proposed. ... [the project planners] should consider an alternative that would cover the category one pile on an ongoing basis, or build multiple category one piles that can be covered incrementally over the first 13 years. Such an alternative is also consistent with Minnesota Rules, part 6132.2400	ALT13
3410	We are concerned by the lack of detail describing how the agencies determined that discharges from the emergency overflow channel are “not expected.” When one considers that some level of postclosure water quality monitoring and treatment will be required at the plant site for approximately 500 years and the extent of harmful substances in the tailings basin, the environmental review should provide a more detailed analysis to ensure that harmful overflows from the tailings basin will not occur. The lack of discussion about climate change impacts on water resources... raises further concerns about how this determination was made.	WR057, WR070, WR128, WR180
3419	Article 6 of the Great Lakes Water Quality Agreement of 2012 contains a notification provision ... [and] specifically lists “mining and mining related activities” as an example of activities that could have a significant cumulative impact. Providing such notification will ensure that the government of Canada, as well as representatives from Federal Governments, State and Provincial Governments, Tribal Governments, First Nations, Métis, Municipal Governments, watershed management agencies, emergency response authorities, and other local public agencies all receive proper notification of this proposal. We further recommend that ample time for responsive comment be provided following such notification.	HU03
3542	In light of these well documented and accepted impacts [including decreased water flows in tributary streams and wetlands, mercury increases in the Embarrass River and downstream lakes, and increased sulfate levels in the Partridge River], it seems inconsistent to categorically classify the impacts to the St. Louis River and Lake Superior as “only minor” without conducting a proper cumulative impacts analysis.	WR024, WR042, WR081, WR111, WR159
3558	Mud Lake Creek has a current mercury concentration of 3.5 ng/L. The redirection of more runoff to Mud Lake Creek would increase mercury loadings to this water body, which is part of the Embarrass River watershed.	MERC23
3562	the Tailings Basin containment system would collect seepage from the Tailings Basin, which has a current estimated mercury concentration of 1.1 ng/L. The project would be designed to route the seepage to the WWTP, which would be constructed at the mine site. The discharge from the WWTP is expected to be 1.3 ng/L (consistent with the Great Lakes Initiative Standard). The result is a net increase of 0.2 ng/L of mercury as a result of the wastewater treatment.	MERC20

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Alliance for the Great Lakes (22327)		
3578	Even though the category one waste rock is considered low risk for environmental damage, the project planners should consider options that can significantly reduce harmful pollution in an economical way.	ALT07, ALT13
3582	We urge the co-lead agencies to consider alternatives for the emergency overflow channel that provide greater assurance against harmful runoff that account for the long-term site management.	ALT11
<b>Sender Name (Submission ID)</b> Allison Engel (42830)		
7330	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
7330	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
<b>Sender Name (Submission ID)</b> Allison Herreid (42986)		
8816	The SDEIS acknowledges the destruction of habitat of some of Minnesota's threatened and endangered species, but does not propose a viable solution. In addition to this, resources for such animals, including moose - which though not endangered are in rapid decline in our state, may alter in quality (such as water) that may also affect the health of the animals.	WI01, WI02
15177	The process of restoring "certain disturbed lands" to "potentially create new habitat" will take decades. What about now? We will allow the current habitats to be destroyed, along with crucial resources, leaving these already endangered animals with less...The impact to the habitats and resources of our endangered and threatened species should be more carefully analyzed in order to determine the effects on currently declining populations.	WI01, WI02
15178	Another very important issue that needs more attention is that of water quality and the effect of sulfate on quality and nutrient cycling for wild rice. With the increase of sulfate, nitrogen becomes less available to plants and animals. This means that with the increasing sulfate levels, it will be harder for wild rice to grow due to the lack of nitrogen.	VEG04, WR156, WR157
15179	[sulfate and sulfuric acid] will damage water quality no matter how much gets in, and because most of our water sources are connected, it will be hard to keep these elements from spreading from wetlands, to rivers, and to lakes.	WR111
15180	it is important to add a study of the health impact of this mine.	HU01
15181	Another major flaw I see with this SDEIS is that it doesn't account for uncertainties or accidents. What happens if the wastewater leaks from its container? What if something breaks, allowing for waters to be polluted? How can this science behind this project be so accurate if it has not been performed? It is important that we know exactly what could go wrong and what the mine plans to do when something does go wrong.	MERC20
15182	We will only get 20 years out of this mine, and hundreds will be spent cleaning up after it, which will have substantial costs. It is unreasonable to think that this company will be around to ensure the clean-up is paid for. This will be left for future generations to deal with.	FIN01
<b>Sender Name (Submission ID)</b> Allison LaBonne (45521)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Allison LaBonne (45521)		
11504	Please protect our most important natural resource: fresh water	WR115
11505	The increased risk of chronic illness is too high	HU03
11507	The risk that taxpayers will end up footing the bill for long term clean up is too high	FIN01
15758	and though it creates a few jobs and a some tax revenue, the bulk of the profits go to foreign countries.	SO06
<b>Sender Name (Submission ID)</b> Allison Plathe (44324)		
9977	I know that you are weighing the 200 jobs that this mine will bring to the area, but it is not worth it to destroy our natural resources.	SO01
<b>Sender Name (Submission ID)</b> Allison Spoelhof (52297)		
10796	No mine like this has ever had a good environmental track record, and short term profits are not worth long term environmental and health costs.	SO01
<b>Sender Name (Submission ID)</b> Alyssa Hoppe (18119)		
3392	Redo the SDEIS to disclose mercury concentrations and loading release directly or indirectly into the surface waters from all PolyMet sources.	MERC08, MERC16
3393	Redo the SDEIS to assess mercury impact without unreasonable assumptions, like the off-site or Embarrass mercury increases, or the claim that 99 percent of mercury is never released from tailings.	MERC06
3395	Redo the SDEIS to evaluate the metal mercury bioaccumulation from air emissions of mercury and sulfide, water discharge of mercury, an sulfate and hydrological changes resulting from the PolyMet project.	MERC08
3397	Redo the SDEIS to require a separate and clear health risk assessment prepared in conjunction with the Minnesota Health Department to analyze impact of all sulfide mines and plant emission releases and accumulations on health, including a description of the known human health impact of PolyMet's emissions and discharges in language understandable to the public;...	HU01
13498	Redo the SDEIS to require a separate and clear...assessment of potential impact on residential wells from tailings basin seepage;	WR041
13499	Redo the SDEIS to require a separate and clear.. health risk assessment for onsite workers at both the PolyMet mine and plant;	HU04
13500	Redo the SDEIS to require a separate and clear... assessment of cumulative mercury risk including actual (inaudible) in lakes already impaired;	MERC10
13501	Redo the SDEIS to require a separate and clear... assessment of cumulative cancer and non-cancer risks from existing and additional sources of manganese, arsonic, lead, nickel, and other toxic chemicals, (inaudible) health risk limit and federal profile health analysis; assessment of all risks using a 70-year lifetime for exposure;	HU01
13502	Redo the SDEIS to require a separate and clear...assessment of cumulative risks of multiple chemicals in exposure wells, drinking water, fish, wild rice, on infants, children, and the elderly; assessment of cumulative risk of mercury contamination of the fish in the St. Louis River (inaudible); complete a measure TMDL study for the St. Louis River before finalizing the PolyMet SDEIS;	CU11, MERC22

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Alyssa McGillivray (10719)		
586	The SDEIS is comprehensive, informative, complete. It's time to move on to the Permitting process.	NEPA16
<b>Sender Name (Submission ID)</b> Amanda (39252)		
5496	As the granddaughter of a man who worked in the Iron Ore mines in Hoyt Lakes, I fully understand that this area desperately needs jobs to bring back a struggling economy. But I also know, as a passionate environmentalist, that this is a short term fix to a long term problem.	SO01
5497	PolyMet is promising things that have the potential to fail, and the pristine wetlands and unique Minnesota wildlife can't take that risk.	PD01
5498	the health of the people who live up there as well as the health of fresh water sources is in danger if PolyMet is able to proceed with their plans.	HU03
16380	I am against the sulfide mining because they're owners and tourists that cares and are fighting against it too.	SO02
16381	It will affect the lakes and rivers that are around the areas. And also [ILLEGIBLE].The lakes has been untouched ever since 1978 Wilderness in MN.	WR111
16382	Another thing that the sulfide mining will also affect the living things under the water.	AQ05
<b>Sender Name (Submission ID)</b> Amanda Johnson (38423)		
13640	I trust that the DNR has done a thorough job and our water will be safe.	PD28
13641	This project will help our local businesses and schools which are both in desperate need and have been since LTV shut down...the people who live here want to work and have their children be able to stay in the area instead of moving away because of a lack in jobs.	SO10
<b>Sender Name (Submission ID)</b> Amanda Kelly (44211)		
14887	The Boundary Waters is my home away from home, and the truest form of escape that I can imagine. It is a wonderful and serene area where I have made my most cherished memories, and I simply cannot fathom not being able to experience it with with my unborn children.	WILD02
<b>Sender Name (Submission ID)</b> Amber Arntz (47239)		
9243	I support the PolyMet Project because PolyMet will have dramatic, positive socioeconomic impacts to a region that exists merely because of mining. This project is located in an area that supports mining and the jobs it will bring.	SO10
9244	Looking into a future without mining advancements, having only an economy based on the current prospects and tourism has a grim and bleak future for our youth and the area itself.	SO10
<b>Sender Name (Submission ID)</b> Amber Garlan (3002)		
12333	Sulfide mining releases toxic metals and can create Acid Mine Drainage (AMD), polluting our rivers and groundwater for hundread of years - long after the profits are spent and the products buried in landfills.	WR001

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Amber Garlan (3002)	
12334	PolyMet's own study says that the wter from the mine side would need at least 500 years to treatment. 500 years of cleaning up toxic, hazardous waste is not in the public interest.	PD01
14649	The best case scenario for the mine anticipates at least 500 years of polluted water that will have to be actively treated. And, not all of the polluted water will be captured and sent for treatment. Every year, 11 million gallons of polluted seepage from the tailings basin will enter groundwater and the environment without being treated. Every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater and the environment without being treated.	WR010, WR070, WR108, WR128
14654	PolyMet Mining Company's proposed NorthMet sulfide mine fails to meet four fundamental, common sense clean water principles, principles the mining industry previously agreed to. The proposed mine plan does not keep Minnesota's water safe and clean[;]... does not put safeguards in place for when things go wrong[;]... does not leave the site clean and maintenance free[; and]... does not protect Minnesota taxpayers	WR037, WR130
14657	the model used to predict impacts to water quality has many flaws that may significantly under-represent pollution risks. Indeed, the model has been shown to be inaccurate in representing current conditions for water quality surrounding the mine site undermining confidence that it can accurately predict future water conditions.	WR049, WR189
14658	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin spills. These are foreseeable events that should have emergency plans developed and articulated so the public has confidence in the company's ability to respond to a crisis.	PD22
14659	The mine plan does not describe what will happen if the water treatment plants break down. Will this pollution be discharged into the environment?	WR129, WR144
14660	The mine would contain a complex network of miles of pipelines, carrying polluted and treated water to and from various locations. The mine plan does not describe what would happen if a break were to happen in a pipeline carrying high concentrations of toxic metals and sulfates.	PD22
14663	The plan for at least 500 years of active water treatment violates Minnesota Rules (6132.3200) that call for the mine to be left maintenance free at closure... A lengthy network of pipelines conveying polluted and treated water would need to be monitored and maintained for at least hundreds of years.	PER04, WR037, WR131
14670	The plan commits Minnesota to at least 500 years of polluted water treatment without providing critical information about how this will be paid for and who will be responsible for it. Details about financial assurance a "damage deposit" the company provides are not outlined in the revised mine plan. The public does not know how much 500 years of water treatment will cost, how the company will be held responsible for centuries of costly water treatment, or how the public will be protected from liability.	FIN01, FIN05
15632	Manoomin (wild rice) is recognized as a significant resource for Minnesota's tribes, access to which is protected by the Treaty of 1854. Even low levels of sulfates are proven to affect wild rice stands, a fact recognized by Minnesota's protective wild rice sulfate standard... Since sulfate levels in wild rice beds downstream of the proposed mine already exceed the standard, the proposal must demonstrate it "would have an acceptably high probability of not increasing sulfate concentrations in these areas" (p. 5-5). The mine plan does not meet this test	WR162, WR163
15633	PolyMet claims they will meet this [sulfate] standard by using water treatment (including reverse osmosis) to eliminate sulfates before wastewater is released. However, the mine plan predicts that 5.2 million gallons per year will seep out without treatment at the Mine Site after closure, and 11 million gallons of untreated water per year will escape the Tailings Basin (5-8). This seepage will surface and enter streams and rivers nearby.	WR070

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Amber Garlan (3002)		
15634	The standard to protect wild rice is 10 milligrams grams per liter of water. The waste rock left behind at the Mine Site will create runoff with sulfate levels of 2,000 to 4,000 micrograms per liter after closure, 5 million gallons of which will escape untreated every year. In fact, the SDEIS predicts that many years after closure this could violate the sulfate standard to protect wild rice, requiring additional measures (5-142).	WR156
15635	The SDEIS is contradictory, on the one hand relying on mechanical water treatment for hundreds of years in order to seemingly meet the sulfate standard, but also describing possible passive treatments that may be developed that would seasonally violate the protective sulfate standards. The EIS should eliminate that contradiction.	WR137, WR153
15636	the SDEIS inadequately characterizes wild rice waters downstream of the PolyMet sites. The Great Lakes Indian Fish and Wildlife Council has provided additional wild rice sites other than those included in the SDEIS. The EIS should be revised to include these additional wild rice waters.	WR154
17010	500 years of cleaning up toxic, hazardous waste is not in the public interest.	SO01
<b>Sender Name (Submission ID)</b> Amber Waller (54357)		
18205	I think that PolyMet Mining has a very good plan in place. ... I feel PolyMet will take the proper precautions and will deal with any spills or leaks. They have assurance that all water will be treated and plant life restored. They also will keep track of affects to cultural resources. So, I must say that I agree with their plan to build the mine.	PD28
18206	It's a good idea to have insurance if the mine suddenly closes.	FIN01, FIN08
18207	The mine will definitely provide more jobs. It will also boost our economy.	SO10
18208	If the water isn't treated properly, it could cause a lot of contamination problems. Mercury contamination would not be good.	WR128
18209	mining noise could seriously affect the First Peoples hunting. If contaminants leaked, it could kill a lot of gathering plants.	CU11
<b>Sender Name (Submission ID)</b> Amelia George (37817)		
11158	I think that this mine could be really bad for the tourist industry	SO02
11160	the pollution that this mine will generate will definitely be bad for the health of the people, animals and plants that will be downstream of this plant.	VEG06
11162	I heard that Polymets SDEIS water model is not accurate; that the actual rate of groundwater base flow is 200-300% higher than the rate used in the SDEIS. It needs to be redone.	WR003, WR071, WR091
13926	I don't think that the environmental damage to the area is worth the jobs that would be created by Polymet's mine.	SO01
<b>Sender Name (Submission ID)</b> American Exploration & Mining Association (42890)		
10031	The SDEIS provides ample support for the conclusion that this Land Exchange would be consistent with management of the Superior National Forest and governing Land Exchange requirements.	LAN11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> American Exploration & Mining Association (42890)		
18268	...because these regulations require exploration and mining companies to provide financial assurance to guarantee reclamation at the end of the project, mines today will not become future abandoned mine lands (AML).	FIN01
18269	Mining creates new wealth and the high-paying jobs Minnesota and our country desperately need.	SO10
18270	Moreover, the indirect employment multiplier for the mining industry is twice the national average.	SO10
<b>Sender Name (Submission ID)</b> Amethyst Hare-Heim (57173)		
18689	Don't put in any more mines. We need more resourceful answers that will not hurt our future generations.	NEPA02
<b>Sender Name (Submission ID)</b> Amie Stone (54204)		
17265	This mine project proposal for Northern Minnesota will in no way be beneficial to the people of this state of the BWCA...The "economic benefits" will not at all influence the area surrounding the mine, other than the few, short-term jobs it will provide...The negative aspects completely outweigh the "benefits."	SO02
17266	As an avid canoer and camper, the BWCA is the perfect place to do so...The watershed is 100% pure, I can dip my canteen in the certain areas directly into a lake or stream and just drink.	LU06
17268	There has been undeniable evidence regarding the pollution associated with sulfide mining. It releases sulfuric acid into the water, lowering the pH and therefore harming critters.	WI04
<b>Sender Name (Submission ID)</b> Amy Donlin (40169)		
6562	This is the ecological, social and economic legacy footprint that will impact OUR STATE for hundreds of years; that's a scary prospect when Polymet, Northmet and their cohorts will be long gone by the year 2040 or so, without intention or means to pay for the superfund site they leave behind for us.	PD24
6564	[Polymet's] track records should be enough to convince the State of Minnesota to drive them away before they do any more damage than they already have.	PD23
6565	[concern project will have]Impacts to three watersheds	WR111
6569	[concern project will cause] Loss of pristine wetlands and forest	VEG03
6571	[concern project will have] Impacts on wildlife	WI01
6574	[concern project will cause] Climate change due to carbon emissions	AIR01
6575	[concern project will cause] Serious health threats to people including cancers and respiratory ailments	HU03
6578	[concern project will cause ]Mercury poisoning- people who live in the Superior Basin are already exhibiting dangerous levels	MERC03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Amy Donlin (40169)		
6579	[concern project will cause] Loss of public lands	LU06
6582	[concern project will have] Devastating aesthetic impacts	LU04
6583	[concern project will cause] Loss of wilderness.	WILD02
6584	[project will cause] Loss of northeastern economy based on eco-tourism	SO02
6586	[project will cause] Loss of wilderness jobs- thousands of people depend on ecology and wilderness for their wages (compared to three hundred jobs that will last a couple of decades—and then where will the miners go when the last traces of mineral are gone?)	SO01
6588	A strange lack of any cost/benefit analysis is a dangerous red flag [in the SDEIS]	FIN08
6589	[Polymet will cause] Superfund cleanup to the tune of billions of dollars for hundreds of years	FIN05
6591	[polymet project] is the ecological, social and economic legacy footprint that will impact OUR STATE for hundreds of years; that’s a scary prospect when Polymet, Northmet and their cohorts will be long gone by the year 2040 or so, without intention or means to pay for the superfund site they leave behind for us.	PD24
<b>Sender Name (Submission ID)</b> Amy Farland (39906)		
6919	The GoldSim water quality model used to predict levels of pollution, movement of contaminated water, and effectiveness of water treatment predicts that water captured at the site will exceed water quality standards for hundreds of years after the mine stops operating. On page 3-72, the SDEIS says that "Based on current GoldSim P90 model predictions, treatment activities could be required for a minimum of 200 years at the Mine Site..." Other graphs and data in the water management plan that supports the SDEIS show that sulfates and heavy metals will dramatically exceed water quality standards for hundreds of years after closure.	WR035, WR038
6925	Minnesota Rules 6132.3200 sets a goal that after closure a mine site should be "stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact other natural resources, and is maintenance free." The mine plan calls for hundreds of years of maintenance and operating active water treatment plants, and violates this rule.	PER04
<b>Sender Name (Submission ID)</b> Amy Freeman (43088)		
10059	The idea that the site would reach a self-sustaining stable condition by around year 40 doesn't pass the sniff test. They are writing this as if somehow the WWTF that they present as being necessary to prevent long-term discharge of contaminants from the west pit could sustain itself a few decades out. How could this be possible?	PD03
14993	The real issue in terms of long term environmental detriment is this (from page 988 of the SDEIS):...When the West Pit water level rises above the top of bedrock, there would be a release of pit lake water into the West Pit Surficial Flowpath. The affected groundwater in this flowpath would migrate slowly towards the Partridge River.	WR130

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Amy Freeman (43088)		
14994	the document says that the WWTP (wastewater treatment plant at the plant) and WWTF (water water treatment facility at the mine site) will remain active for long-term needs, but it is very vaguely stated. The reality is that there would be water that is significantly affected by sulfides and metal leachates associated with the exposed rock in the pit and the waste rock in the "stockpile" for a very long time.	WR035, WR037, WR173
14995	It is also hard to envision that the hydarluc barrier could really be that effective as is illustrated. Lots of things happen in soils---animal burrowing, roots that would make it very hard to maintain an impermeable hydraulic barrier.	PD07, PD15, WR019
14996	The WWTF would remain operational until water quality monitoring results demonstrate that a non-mechanical system could produce an effluent water quality, which is shown by pilot-testing and modeling, to achieve future water quality criteria at evaluation locations without the need for mechanical treatment. ...I read this to mean that Polymet really doesn't know how they can come up with a water treatment strategy that is sustainable for the long term.	WR035, WR137
14997	Who then is operating the WWTF on the long-term? The models themselves are based on the notion that high chemical loading will continue for at least 200 years.	WR035
<b>Sender Name (Submission ID)</b> Amy Gardner (44524)		
10668	Trading two decades of benefits for polluting this water rich environment with potential contaminants like arsenic, sulfate, manganese and heavy metals for at least 500 years just doesn't make sense.	SO02
10669	I ask that a better job be done in studying the impact of mercury contamination of fish and the impact of untreated pit releases to surface groundwater on wild rice before the EIS is finalized.	MERC02, WR156
10670	The SDEIS does not address who will perform the indefinite monitoring of the on-site constructed wetlands.	WET22
10672	The SDEIS must reveal wastewater volumes, pollutant levels and it must explore options if something goes wrong(fails) during long term water treatment	WR130, WR181, WR182
10674	I feel that the SDEIS is flawed because the models for the amount of pollutants to be released are based on data from other sites and not on the current water data from the project site or it's surrounding area	WR023, WR071
10675	The company did not study the type of rock or the structure beneath the wetlands.	WR120
<b>Sender Name (Submission ID)</b> Amy Goetzman (44457)		
10963	In order to let an outside corporation access one resource, copper, for 20 years, the DNR appears ready to throw away a much more important resource, water, for a much longer period of time. How is it possible that we are even talking about poisoning our water for 500 years, in two of the state's most environmentally sensitive and important areas?	WR115
10964	Why are they [polymet] being allowed to come in and destroy our natural areas, contaminate our water supply, and ultimately leave the taxpayers with a mess that will never truly be cleaned up?	FIN10
10966	PolyMet has indicated that many of the jobs will go to outsiders. Even the local jobs that are generated are temp jobs.	SO06
10967	It is the DNR's job to protect Minnesota's resources, not give them away to outside interests.	PER35

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Amy Goetzman (44457)		
10968	If PolyMet wants our resources so badly, don't give them away — at the very least, make the company work hard to come up with a better plan.	PD32
<b>Sender Name (Submission ID)</b> Amy Levin (26455)		
15199	Many, many sulfur compounds have a TERRIBLE ODOR. This is another reason I oppose sulfide mining. Winds could move the terrible smell over several states and in to Canada, hurting international relations.	AIR10
<b>Sender Name (Submission ID)</b> Amy Okaya (42862)		
8863	We know that many chemicals involved in sulfide mining, including nickel dust, cause cancer. However, the SDEIS does not disclose cancer risks to on-site workers. Further, it uses a 30 year time period to calculate lifetime cancer risk -less than half the 70 year standard used by the EPA - and thus distorts the actual risk...I request that the DNR conduct a cumulative effects analysis of sulfide mining on the Lake Superior Basin. This should include an analysis of health effects conducted by the Minnesota Department of Health.	HU04
8863	We know that many chemicals involved in sulfide mining, including nickel dust, cause cancer. However, the SDEIS does not disclose cancer risks to on-site workers. Further, it uses a 30 year time period to calculate lifetime cancer risk -less than half the 70 year standard used by the EPA - and thus distorts the actual risk...I request that the DNR conduct a cumulative effects analysis of sulfide mining on the Lake Superior Basin. This should include an analysis of health effects conducted by the Minnesota Department of Health.	HU01, HU04
8864	Especially troubling in the SDEIS is the omission of mercury that would be released into surface waters from mine pits, waste rock, draining piles of peat and polluted sumps (p. 5- 107, 5-109, and 5-129). Mercury has damaging effects all the way up the food chain, and disproportionately and unfairly affects native peoples and others exercising their right to hunt and fish on the land. We know from recent studies by the Minnesota Department of Health that already 1 in 10 infants in Northeastern Minnesota are born with unsafe levels of mercury in their blood. We can't afford to put the health of our people and wildlife at any greater risk.	HU03
8864	Especially troubling in the SDEIS is the omission of mercury that would be released into surface waters from mine pits, waste rock, draining piles of peat and polluted sumps (p. 5- 107, 5-109, and 5-129). Mercury has damaging effects all the way up the food chain, and disproportionately and unfairly affects native peoples and others exercising their right to hunt and fish on the land. We know from recent studies by the Minnesota Department of Health that already 1 in 10 infants in Northeastern Minnesota are born with unsafe levels of mercury in their blood. We can't afford to put the health of our people and wildlife at any greater risk.	HU03
8868	The DNR is the first to admit that much is still unknown about our state's groundwater, that more research needs to be done, and that it must do more to actively protect these resources. The Polymet proposal is contradictory to these goals. The Polymet tailings basin is unlined, and existing seepage already exceeds groundwater standards. In addition, on the LTV site next to the tailings, the SDEIS has documented that Area of Concern #8 has a plume of pollution propagating through fractures (SDEIS, p. 4-12)... I request that the DNR conduct a cumulative effects analysis of sulfide mining on the Lake Superior Basin...[taking] into account up-to- date statewide policy that seeks to better understand, protect and preserve Minnesota's groundwater resources.	CU01, CU18

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Amy Okaya (42862)		
8868	The DNR is the first to admit that much is still unknown about our state's groundwater, that more research needs to be done, and that it must do more to actively protect these resources. The Polymet proposal is contradictory to these goals. The Polymet tailings basin is unlined, and existing seepage already exceeds groundwater standards. In addition, on the LTV site next to the tailings, the SDEIS has documented that Area of Concern #8 has a plume of pollution propagating through fractures (SDEIS, p. 4-12)... I request that the DNR conduct a cumulative effects analysis of sulfide mining on the Lake Superior Basin...[taking] into account up-to- date statewide policy that seeks to better understand, protect and preserve Minnesota's groundwater resources.	WR086, WR105
18118	Mercury has damaging effects all the way up the food chain.... We know from recent studies by the Minnesota Department of Health that already 1 in 10 infants in Northeastern Minnesota are born with unsafe levels of mercury in their blood. We can't afford to put the health of our people and wildlife at any greater risk.	MERC03
18118	Mercury has damaging effects all the way up the food chain , anddisproportionally and unfairly affects native peoples and others exercising their right to hunt and fish on the land.... We know from recent studies by the Minnesota Department of Health that already 1 in 10 infants in Northeastern Minnesota are born with unsafe levels of mercury in their blood. We can't afford to put the health of our people and wildlife at any greater risk.	MERC03, SO01
18121	At this time more than ever, the Minnesota legislature, the DNR, the Met Council and others are focusing attention on groundwater. The DNR is the first to admit that much is still unknown about our state's groundwater, that more research needs to be done, and that it must do more to actively protect these resources. The Polymet proposal is contradictory tothese goals. The Polymet tailings basin is unlined, and existing seepage already exceeds groundwater standards. In addition, on the LTV site next to the tailings, the SDEIS has documented that Area of Concern #8 has a plume of pollution propagating through fractures (SDEIS, p. 4-12)	WR070
18121	At this time more than ever, the Minnesota legislature, the DNR, the Met Council and others are focusing attention on groundwater. The DNR is the first to admit that much is still unknown about our state's groundwater, that more research needs to be done, and that it must do more to actively protect these resources. The Polymet proposal is contradictory tothese goals. The Polymet tailings basin is unlined, and existing seepage already exceeds groundwater standards. In addition, on the LTV site next to the tailings, the SDEIS has documented that Area of Concern #8 has a plume of pollution propagating through fractures (SDEIS, p. 4-12)	WR070
18122	I request that the DNR conduct a cumulative effects analysis of sulfide mining on the Lake Superior Basin. This should include an analysis of health effects conducted by the Minnesota Department of Health, and take into account upto-date statewide policy that seeks to better understand, protect and preserve Minnesota's groundwater resources.	CU01
18122	I request that the DNR conduct a cumulative effects analysis of sulfide mining on the Lake Superior Basin. This should include an analysis of health effects conducted by the Minnesota Department of Health, and take into account upto-date statewide policy that seeks to better understand, protect and preserve Minnesota's groundwater resources.	CU01
<b>Sender Name (Submission ID)</b> Amy Wilfahrt (54656)		
17954	I believe the SDEIS is insufficient and should not be approved because it is lacking vital information about longterm water treatment and how it will be paid for- information that is necessary to decision makers.	GEN03
17955	PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part ofthe Superior National Forest the largest designated important Bird Area in Minnesota. In addition to this direct destruction of habitat, sulfates and toxic metals such as mercury, copper and nickel that are not captu red for treatment will affect the aquatic organisms and habitats downstream.	AQ05, WI02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Amy Wilfahrt (54656)		
17956	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Blackbacked Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
17957	I do not want large foreign corporations taking advantage of our metals for their own financial gain. They destroy the Minnesota landscape and its water resources without realizing it.	SO02
17958	Clean water resources are something Minnesotans are proud of and most of us recognize the importance of keeping it clean, so let us not potentially contaminate it with the open pit mining.	WR107, WR108
17959	Twenty years of mining threatens hundreds of years of water pollution to sensitive birds, their habitats and Minnesota's water. This trade-off is not worth the risk.	SO01
<b>Sender Name (Submission ID)</b> Amy Wilson (43608)		
12545	I am adamantly apposed to the proposed PolMmet mine because it will endanger our collective watershed and ultimately it will harm Lake Superior	WR195
12546	There is a grievous lack of responsibility to allow a sulfide mine to be built for the profits of a few when the long-term effects will harm the many. Human wants for monetary gain cannot and should not take precedence of environmental health.	SO01
15107	It is impossible to monitor the tailings ponds for 500 years even if it were a safe option.	PD08
<b>Sender Name (Submission ID)</b> Anders Lindquist (54533)		
19064	I see a general lack of accountability for PolyMet and its investors for the environmental issues that are sure to follow a mining project that produces such large quantities of waste. Who will be held responsible for the environmental impacts 200 years from now. Also is there any contingency planning in case the new technology for controlling the inevitable pollution fails? I would like to see a revision that makes proposed plans for how to deal with every conceivable contingency plan.	FIN01
<b>Sender Name (Submission ID)</b> Andre Bell (16961)		
11025	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Andre Leavitt (18248)		
13665	jeopardizing the watershed of Lake Superior. That is just madness for 20 years of jobs. I'm sorry, you got to move and find work elsewhere, start a business.	SO01
<b>Sender Name (Submission ID)</b> andre lima (42)		
35	The EIS cannot account for all scenarios that could occur in real life, for example power outages, major winter storms or tornadoes that could damage the waste water treatment facilities leading to potential environmental contamination.	PD22, WR128, WR129

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	andre lima (42)	
424	The only way to guarantee the safety and cleanliness of our water and air is to not allow [this mining operation].	AIR11, WR111, WR195
<b>Sender Name (Submission ID)</b>	Andrea Girtz (20660)	
15836	The SDEIS admits that PolyMet would directly destroy 913 acres of wetlands and as much as 7,351 acres of wetlands due to air and water pollution, mine dewatering and diverting water from wetlands. That could be the single largest wetlands loss ever proposed in Minnesota in the history of the Clean Water Act!	WET23
15837	Wetlands in the 100 Mile Swamp and Partridge River Headwaters... are important for water quality and as a habitat for moose and other at-risk species.	WET19
15838	Wetlands at the PolyMet mine site also bind up mercury, so it doesn't get into downstream fish and harm the brain development of our children who eat St. Louis River and Lake Superior fish.	HU03
15839	Wetlands that would be harmed or destroyed by the PolyMet mine are water resources of national and international importance.	WET19
15840	The environmental review process is supposed to let us weigh alternatives. The PolyMet SDEIS doesn't suggest any alternatives to reduce impacts on wetlands at the mine site... It doesn't look at alternatives that would restore wetlands on site or clean up mine water and keep it in the Partridge River watershed.	ALT06, ALT13
15841	The SDEIS rejects underground mining without studying how avoiding an open-pit could reduce environmental harm.	ALT01
15842	The "compensation" wetlands plan proposed by PolyMet is also completely inadequate. More than 2/3 of the replacement wetlands are outside the Lake Superior Basin and there is no mitigation at all for indirect wetlands loss. Monitoring and maybe doing something later is not an answer, especially since the Army Corps has never required mitigation for dried out or polluted wetlands after-the-fact.	COE01, COE02, WET01, WET03
15846	[Please] Reject the PolyMet sulfide mine due to its unacceptable impacts on wetlands and water resources of national and international importance.	WET19, WR195
15847	[Please] Reject the PolyMet SDEIS as in adequate due to the fact that no alternatives that could reduce water pollution and wetlands destruction are analyzed in the SDEIS.	ALT06
15848	[Please] Deny the Section 404 permit for the PolyMet sulfide mine plan, since it would destroy irreplaceable wetlands, peatlands and wetlands functions.	COE03
15850	[Please] Deny the PolyMet Section 404 permit, since the PolyMet SDEIS plan provides no mitigation for thousands of acres of foreseeable "indirect" wetlands losses.	COE02
15851	[Please] Deny the PolyMet Section 404 permit unless all "compensation" mitigation for wetlands is provided within the Lake Superior Basin.	COE01
15856	[Please] Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality... [including] Underground mining, looking at the full ore deposit and PolyMet's real costs;	ALT01, ALT13
15865	[Please] Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality... [including] Putting a liner under the Category 1 waste rock stockpile;	ALT06, ALT07

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Andrea Girtz (20660)		
15866	[Please] Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality... [including] Placing all tailings on a new completely lined facility;	ALT10, ALT13
15867	[Please] Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality... [including] Returning the Category 1 waste rock to the West Pit to reclaim 500 wetland acres;	ALT06
15868	[Please] Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality... [including] Building the reverse osmosis on the mine site in year 1 to treat (up to standards) and discharge runoff and pit water on site to minimize impacts to wetlands.	ALT13
<b>Sender Name (Submission ID)</b> Andrea Thompsom (39785)		
14253	There is only one Lake Superior and wilderness area! Sulfide mining can ruin it for all times!	WILD02
<b>Sender Name (Submission ID)</b> Andrea Vail (3126)		
574	I believe they will generate millions of dollars in local and state taxes to support the MN communities and educational system.	SO10
<b>Sender Name (Submission ID)</b> Andrew Comfort (43342)		
11651	The December 2013 Polymet SDEIS is inadequate because it does not include analysis of uranium in the waste rock, tailings etc. The Eagle Mine in Michigan had trouble with uranium contamination of drinking water. So it is reasonably foreseeable that the Polymet mine could as well. Rock with up to 7 ppm of U was one potential cause of the uranium problems at Eagle Mine.	HAZ03
11829	Rephrase the financial assurance section in the SDEIS so that there is clearly no cessation of financial assurance under any circumstance. Further, state that Polymet and its parent, assigns, successors etc...remain responsible for the financial assurance for all time. Otherwise there is a risk that a legal maneuver could be taken to force the cessation of financial assurance – which would then place the burden onto Minnesota taxpayers instead.	FIN01
12168	Interpretation: the SDEIS is inadequate because it too narrowly interprets “cumulative effects” and “reasonably foreseeable,” thus inappropriately categorizing numerous proposed mines as “speculative.” Both CEQ and Minnesota Rules suggest a broader interpretation.	CU02
12169	in the revised SDEIS one scenario of the cumulative effects analysis should include all proposed mining operations from Polymet to Spruce Road and a further scenario should include the assumption of mining operations along the entire basal contact zone from Polymet to Tuscarora Lake	CU02
12170	the revised SDEIS will provide the opportunity to take a broad view of mining on the Duluth Complex, now, before it commences, based on full information available today of what the area will look like in 150 years or 500 years if/when Polymet to Spruce Road or Polymet to Tuscarora Lake is fully mined and closed, with water treatment either ongoing or prematurely ceased	CU13
12171	the SDEIS...excludes Teck American, Twin Metals and others from the cumulative effects analysis by labeling them as “Speculative Actions.”	CU02
12173	The discussion throughout this comment demonstrates that the SDEIS is inadequate because the future actions of Teck American, Twin Metals and others have been wrongly excluded from the cumulative effects analysis.	CU02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Andrew Comfort (43342)	
12178	Teck American, Twin Metals and other mining along the basal contact zone of the Duluth Complex (Figures 4 and 8) to the north and northeast of the Polymet site should be included in the cumulative effects analysis per Minnesota Rules because: 1) future development is indicated by historic and forecasted trends 2) these projects can reasonably be expected to affect the same environmental resources, and 3) there is a reasonable basis of expectation that these projects will occur	CU02
12180	it is reasonably foreseeable that any mining company will, over time, mine the entire ore body within its lease area. This suggests that Polymet will mine its deposit right up to the border with Teck American (Figure 10) and the several mines and the continuous ore body linking them from Polymet to Spruce Road will all eventually be one continuous mega-mine.	CU02, CU04
12270	The Bedrock Geology Map by Jirsa of MNGS is a summation of geologic understanding of the Duluth Complex. A note on this map says it “compiles the efforts of many geologists working over a period of nearly 100 years.” It is not currently mentioned in the SDEIS, but should be.	WR012
12276	the historic and forecasted trends discussed above demonstrate that Polymet, Teck American, Twin Metals and others in the area should be included in the cumulative effects analysis per guidance by CEQ and Minnesota Rules, for water from all is funneled to the Basswood River in the BWCAW/Quetico (Figure 5).	CU02
12300	Revise the SDEIS to include study of the cumulative impacts of Polymet and Northshore/Mitchell on the BWCAW/Quetico	CU01, CU02
12304	Revise the SDEIS to include study of the cumulative impacts of Polymet and Teck American on the BWCAW/Quetico and to study the nature of the faults and/or bedrock valleys connecting the two pits.	CU01, CU02
12313	Several dams could be built along the length of this south arm in order to submerge these cliff walls and use a “subaqueous containment” strategy to keep air away from the sulfide-bearing cliff walls. These dams would be at least 800 feet tall and would need to last in perpetuity, but would also need to be repaired and perhaps replaced every 200-500 years. The financial assurance could be used to pay for this repair and replacement of dams as needed.	FIN11
12315	the SDEIS wrongly concludes that Polymet will always drain only southward. But like the site of Northshore/Mitchell which once naturally drained southward, the act of mining changes the land and changes the flow of water and moves the Laurentian Divide. Polymet post-closure will impact the BWCAW/Quetico and the SDEIS needs to be revised with further study to reflect this.	WR024, WR071, WR081, WR111
14742	Polymet is currently south of the Laurentian Divide, but post-closure Polymet will be a part of the BWCAW watershed. The broader interpretation of “cumulative effects” will allow a revised SDEIS to more accurately present how mining operations will change the geography and shift the Laurentian Divide southward.	CU01
14747	pollution will occur with respect to any sulfide ore in Minnesota, even with the advent of new technologies. But the risk is particularly high in the water rich environment of the area from Polymet to Spruce Road and beyond as this is the location of the famously densely packed and interconnected waterways of the BWCAW/Quetico. The granite and other bedrock in this area has no propensity to offset acidity introduced by sulfide-ore mining through any accidents or pre-mature cessation of waste water treatment	WR111, WR195
14748	The Minnesota Minerals Coordinating Committee (MMCC) ...sponsored a March 2013 brochure titled “Explore Minnesota: Copper, Nickel, PGEs.” Three projects (Polymet, Teck American and Twin Metals) are listed in a section called “Active Cu-Ni-PGE Projects.” This categorization suggests that all three deserve to be in the SDEIS cumulative effects analysis.	CU02

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<b>Sender Name (Submission ID)</b> Andrew Comfort (43342)		
14750	As currently devised, the SDEIS is “putting on blinders” and pretending that all of the other mining on the Duluth Complex is not in the works. As the discussion above on historic and forecasted trends shows, the gears of international finance and industry and various marketing forces within Minnesota are at work actively promoting the mining of the whole Duluth Complex, strongly suggesting that this mining will occur.	CU04
14751	we should be judging Polymet in the context of the mining of the whole Duluth Complex – considering both the environmental protections and financial assurance required for that far larger total endeavor, and the environmental and economic devastation that could ensue if such protections or assurance fails. The SDEIS should be revised to reflect how Polymet contributes to the cumulative effects of this mining of the Duluth Complex all the way up as far as Tuscarora Lake. And if we together decide this mining is a bad idea, we can put a permanent moratorium on it before any damage is done.	FIN08
15723	This issue should be studied and if necessary discussed in a revised SDEIS regarding how to protect ground water and what needs to be done for proper disposal of any uranium collected.	WR145
<b>Sender Name (Submission ID)</b> Andrew Gibbons (42923)		
17477	BOTH STATE AND FEDERAL POLICY SUPPORT THE DEVELOPMENT OF MINING PROJECTS SUCH AS THE NORTHMET PROJECT IN THE SUPERIOR NATIONAL FOREST. ...When the U.S. Congress created the Boundary Waters Canoe Area Wilderness ("BWCAW") and adjacent Mining Protection Areas in 1978, it defined the areas in the SNF in which mining is prohibited, as well as the areas in which mining is allowed....Congress and the State went a step further than simply establishing that mining is allowed in certain areas within the SNF but outside the BWCAW.	PER39
17478	In 1979, Minnesota completed a Regional Copper-Nickel Study ending Minnesota’s three-year moratorium on copper-nickel mining. The study concluded that hardrock mining can be conducted in an environmentally sound manner and recommended that state agencies coordinate on mining regulatoryactivities to facilitate copper-nickel mineral development....THE NORTHMET PROJECT PROPOSAL ADEQUATELY EVALUATES ENVIRONMENTAL CONSIDERATIONS.	PER34
17479	The USACE, USFS and other federal and state agencies that will issue permits for the NorthMet Project will be able to draw upon this substantialinvestment by the State of Minnesota in preparing for copper-nickel mining in northeastern Minnesota to facilitate mining development within the framework of robust state and federal environmental regulations applicable to projects in the state.	PER34
17480	See 1 Minn. Env'tl. Quality Bd., The Minnesota Regional Copper-Nickel Study 1976-1979, at I (1979); E.K. Lehmann and Associates Inc., Minn. Dep’t of Natural Res., Minn. Pollution Control Agency & Project Environment Fund, The Report on the Mining Simulation Project (1990); Div. of Minerals, Minn. Dep’t of Natural Res., Report to the State Executive Council, at 31 (1991). Since the 1970s, the MDNR and Minnesota Pollution Control Agency (“MPCA”) have conducted water, rock characterization, and reclamation studies identifyingpotential environmental impacts, including the impact of sulfide-bearing mine wastes and available mitigation techniques. See, e.g., Kim A. Lapakko and David A. Antonson, Duluth Complex Rock Dissolution and Mitigation Techniques: A Summary of 35 Years of DNR Research (2012). MDNR andMPCA have also established sophisticated, well-funded programs for regulating mining and protecting the environment in Minnesota. See Minn. R. Chs. 6115 (DNR-public water resources); 6132 (DNRnonferrous mining); 7007-7019, 7021, 7023 (MPCA – air pollution control); and 7050-7060 (MPCA-waterpollutioncontrol)(2013). Twin Metals Minnesota submits the above-referenced materialsdeveloped by the state for inclusion in the administrative record in support of the SDEIS and the findings and conclusions therein.	REF01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Andrew Gibbons (42923)	
17481	The NorthMet Project will utilize brownfield sites for the location of the processing facility and tailings basin, and in doing so will address existing environmental concerns at those sites...the former LTVSMC processing plant will be refurbished, and portions of the former LTVSMC tailings basin will be used as the tailings basin for the NorthMet Project.... This reliance on brownfield redevelopment reflects sound public policy that is encouraged by both federal and state law.	PD28
17482	The adaptive management principles incorporated into the NorthMet Project design and the SDEIS will enable both PolyMet and the Agencies to adapt long-term management of the project sites to evolving environmental and development considerations. The SDEIS's incorporation of adaptive management techniques into its analysis is consistent with the requirements of both NEPA and MEPA.	PER34
17483	NEPA and MEPA require that issues surrounding long-term reclamation of the Project sites must be addressed with sufficient specificity for the Agencies to evaluate the potential environmental concerns. The SDEIS accomplished this by presenting in an overarching analysis – subject to the imposition of additional specific requirements in the permitting phase and in ongoing monitoring and evaluation once operations commence – the long-term reclamation plans for the NorthMet Project. While development of detailed plans early in the process can be beneficial, the FEIS does not need to address such issues with the level of specificity necessary for permitting, final planning, and ongoing operational management.	NEPA16
17484	There will be multiple opportunities for the pertinent state and federal agencies to address long-term reclamation and financial assurance with specificity and on an ongoing basis during the permitting and operations phases of the NorthMet Project when the details necessary to address those issues will be available. The permitting processes for the MDNR Permit to Mine and other approvals required for the NorthMet Project are subject to the scrutiny and expertise of the permitting agencies, are open to robust public participation, and will incorporate the findings of the FEIS.	FIN17
17485	Minnesota law requires the submission of a “contingency reclamation plan” with the application for the Permit to Mine and annually thereafter. Minn. R. 6132.1300, subp. 4 (2013). The contingency plan must include the methods, sequence, and schedule of planned reclamation activities, including specifically closure and post-closure maintenance. Id. Estimates of the costs that would need to be incurred to implement the contingency reclamation plan if operations were to cease in the upcoming year also must be provided. Id. These estimates form the basis for the financial assurance requirements, which are similarly reviewed on an annual basis for the life of the Permit to Mine and revised as necessary.	FIN05, FIN08, FIN14
17486	At this time, it is important to evaluate these considerations and reach conclusions at a conceptual level sufficient to fulfill the purposes of NEPA and MEPA, but not in the detail that may be necessary to satisfy the requirements for permit issuance or subsequent monitoring of permit compliance during operations. The pertinent issues are adequately addressed in the SDEIS, thereby allowing the FEIS to be issued, and any necessary additional details can be developed during the permitting process or at appropriate future stages of project evaluation.	NEPA16
17487	reclamation needs, and the associated financial assurance required to cover those closure needs, will necessarily change over the course of the operation of any mining project. Accordingly, the requirements of the MDNR Permit to Mine and other applicable permits establish a process for adaptation of closure and postclosure activities and other reclamation requirements over time as needs or facts change. ... It is not feasible to address such operational issues in substantial detail at this point in the process, and the Agencies' approach in analyzing reclamation and financial assurance in the SDEIS complies with the requirements of NEPA and MEPA.	FIN17
17488	The criteria for the release of PolyMet's obligations with respect to long-term water treatment of the NorthMet Project need not be identified in the FEIS in order for the Agencies to meet their duties under NEPA and MEPA to consider the long-term implications of, and mitigation available for, the project. Rather, the details of the long-term reclamation plan, and specifically the monitoring and treatment requirements for the NorthMet Project with respect to water quality, can appropriately be addressed at the permitting stage without compromising the adequacy of the FEIS.	NEPA16, WR190

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Andrew Gibbons (42923)		
17489	The alternatives analysis in the SDEIS appropriately evaluated project alternatives and provided explanation as to why certain alternatives identified were excluded from analysis in the SDEIS...The NorthMet Project environmental review process as a whole met both the NEPA and MEPA standards for alternatives analysis.	NEPA16
17490	The SDEIS appropriately identified other past, present and reasonably foreseeable future actions for consideration of the cumulative impacts of the NorthMet Project as required by applicable law...excluded possible projects, including the potential Twin Metals Minnesota project, are appropriately identified as "speculative actions" in the SDEIS, and therefore, are correctly excluded from the cumulative impacts analysis. "Reasonably foreseeable future actions" that must be included in the NEPA cumulative-impacts analysis are limited to those actions that are "imminent or inevitable."	CU02
17491	...as presented in the SDEIS, the NorthMet Project design and long-term commitments are tailored to achieve compliance with both the state and federal policies supporting mining development and environmental protection.	PER34
<b>Sender Name (Submission ID)</b> Andrew Johnson (16203)		
9799	I also believe that we are at a peak for removing resources from the earth. We are spending more and risking more to reach ever more difficult resources. At some point we need to stop this and take a different approach.	NEPA03
<b>Sender Name (Submission ID)</b> Andrew Paul (58135)		
19907	From a health and environmental protection standpoint I can see no reason that Polymet will not protect the citizens and natural resources of the area.	GEN02
19932	I support the Polymet project for many reasons, one of those being the potential economic impact this mine could provide. An impact of nearly 1,000 sustained good paying wages! To me that equates to at least 1,000 families being better suited to provide themselves and their future generations the same opportunities to pursue their goals and ambitions as mining has provided my family.	SO10
19959	Polymet has committed to the proven and effective technology of a Reverse Osmosis Treatment System which will allow them to meet and exceed the sulfate standard. I commend the Environmental Stewardship Polymet is showing by implementing this technology and eliminating the sulfate issue as a concern for their process moving forward.	NEPA16
20012	there will be no impact to the BWCA, and there will be no acid rock drainage.	GEN02, WILD03
<b>Sender Name (Submission ID)</b> Andrew Slade (18130)		
3450	...we've seen some proof tonight that the 90-day comment period is really too short.	NEPA07
3451	... and I think this is more important, is that the project, fundamentally, the EIS document does not present -- presents very few alternatives. The only alternative is the size of the land exchange from the forest service. There was, buried in EIS, the rejection of an alternative which I really think should have been considered more seriously and that was the alternative of an underground mine	ALT06
3452	it [underground mine] would have reduced the impact on wetlands of 900 acres...An underground mine would have provided more jobs. However, the reason that it was rejected out of EIS as an alternative was pretty simple; it was too expensive.	ALT01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Andrew Thorsen (38652)		
11896	I beleive the sdeis adresses all the concerns about the environment and that they have a solid plan in place to mitigate any issues that may arise.	PD28
<b>Sender Name (Submission ID)</b> Andrew Turke (18291)		
12324	Based upon the 500-year projection of that water filtration requirement. It is just a very high risk.	SO01
<b>Sender Name (Submission ID)</b> Andrew Urban (18103)		
3229	[The SDEIS] serves As a wonderful public relations tool, but does little to protect the areas' wetlands, lakes, rivers and watersheds.	WR115
3230	According to Patricia Engelking (phonetic) of the MPCA, since 2010 there have been 12 water quality enforcement actions against eight metallic mining operations, which we know how to do. The settled cases resulted in fines of over \$113,000. The companies paid the money, but the pollutants remained.	WR023, WR139
3231	The SDEIS gives a best-case scenario for a double osmosis system that has never been tested with these particular contaminants and at this proposed volume. The SDEIS is built on best-case scenarios, with skewed data to support them.	PD03
6792	A land swap of this kind is supposed to be land of equal value. But where has this been established in this case? What is the criteria? Does the proposed swap have equal value for the wildlife? Does the proposed swap help the Forest Service achieve its environmental goals?	LAN03
13468	The SDEIS says little about the problems posed by fractures. Pollution of groundwater and wells doesn't happen under a best-case scenario, but in July of 2012, after a record-breaking rainstorm, Duluth learned that nature doesn't always follow best-case scenarios.	WR169
13469	The SDEIS promises robust economic benefits, with little or no environmental damage. History tells us otherwise.	SO01
16359	Help the struggling Northeast Minnesota moose population! Help protect the habitat of the Canada Lynx! Refrain from fracturing contiguous forest to promote healthy habitat for nesting warblers and insure unimpeded corridors for wildlife!	WI01, WI02, WI03
16360	Plant native species and trees to create an ecosystem where invasive plants do not thrive! Offer the public low cost seedlings of native trees and shrubs to increase proper habitat for wildlife!	VEG05
16362	The reason this swap is necessary is the proposed site for the open pit mining is on land that is protected from open pit mining. It is transparently immoral and a breach of public trust to now swap that land so that a mining company can make a profit off it.	LAN02
<b>Sender Name (Submission ID)</b> Andrew Van Hauer (45550)		
11591	I am deeply concerned that neither EIS nor the SDEIS accurately portray the drainage, watershed, or borders of the 100 mile swamp	WET19
11593	I am deeply concerned that neither EIS nor the SDEIS accurately portray the drainage, watershed, or borders of the 100 mile swam	WR080, WR175
11595	This area is of critical concern for migratory birds, and there is no land that exists that would be able to replace this ecologically unique piece of land	WI01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Andrew Van Hauer (45550)		
15890	The fact is, no open pit copper nickel mining project in the world has been successfully completed without significant environmental harm. Often, the nearby waters are polluted with high concentrations of sulfuric acid, requiring hundreds of years of water treatment.	WR023, WR195
15891	We have a rich deposit of precious metals, copper, nickel, and rare earth minerals in Minnesota. We should wait until a company has proven that it is capable of operating a mine elsewhere in the world, without significant environmental impact, before allowing them to operate here.	PER35
15893	PolyMet's only interest is in this mining project. ... They are not owned by Minnesotans, or even by Americans, but based in Canada and the majority ownership is in the hands of Glencore Xstrada, possibly the world's worst international mining conglomerate.	PER02
<b>Sender Name (Submission ID)</b> Andrew Wyffels (42744)		
14423	I understand that we will need these metals soon; however, I can tell that this technology has not yet been employed without eventual water pollution.	WR143
14424	I implore project decisionmakers to run a test mine at a site far from the BWCA to demonstrate the technology. Since this type of mining has never occurred in the state (and never elsewhere without water pollution), Minnesotans need reassurance that our most valuable landscapes will remain as they are for generations to come.	PD32
<b>Sender Name (Submission ID)</b> Andy Boyum (16572)		
2038	...go ahead with the mine as long as the Mine is ran properly to ensure the minimum environmental impact and there is proper oversight on the project by the DNR.	PER34
<b>Sender Name (Submission ID)</b> Andy Johnson (48602)		
16757	he irreversible effects for a quick want, or got to have it hot item. This mine will effect generations forever and the only REALL return will be for the very few who will make a lot of money and move on.	SO01
<b>Sender Name (Submission ID)</b> Andy Kell (54866)		
19354	The risks that are involved with copper and nickel mining are not only dangerous to the environment, but also to the people living near the mines. The sulfuric acid that is produced would leak into watersheds & reservoirs & poison people's drinking water and kill them.	HU01, WR041
<b>Sender Name (Submission ID)</b> Andy Wamstad (5948)		
1951	New jobs have a trickle down affect and it appears this company has done it's homework.	SO10
<b>Sender Name (Submission ID)</b> Angela Livieri (47366)		
16946	Economy is not more important than the environment.	SO01
<b>Sender Name (Submission ID)</b> Angela Schweiberger (10089)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Angela Schweiberger (10089)		
12184	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
12187	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota.	WR195
12189	This project would violate water quality standards for generations to come.	WR115
<b>Sender Name (Submission ID)</b> Angela Silberberger (52403)		
13222	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
<b>Sender Name (Submission ID)</b> Angeline Dufner (39223)		
5450	We can learn from our neighbor Wisconsin and from Europeans: Ban all potentially toxic mining until each proposed mine has been proven safe.	PER35
5451	Do not sell our future for short-term profits.	SO01
5452	Let us not be recorded in history as the Land of 10,000 Toxic Lakes!	WR195
<b>Sender Name (Submission ID)</b> Angie Nichols (12057)		
2006	but I do think that the people and animals inhabiting the state all have a right to a healthy environment and we have a right not to be forced into spatial "swaps" that compromise existing wildlife habitats.	LAN01
<b>Sender Name (Submission ID)</b> Angie Pedersen (54350)		
18174	Having another mine up in the north would create more jobs for people. This will help people create better lives for their families and themselves.	SO06
18175	One of the advantages I came up with is we will get more natural resources, like copper, nickel, and platinum deposits from mining in this area. These products will help fuel our economy by providing our economy with construction material, electrical equipment, and more.	SO10
18176	One disadvantage is we will have a lower air quality, water quantity and quality. This would cause slight problems with our ecosystem.	WR115
18177	Another disadvantage is with the land exchange, it will most likely cut off river flow and may kill some large black spruces, tamaracks, and cedar wetlands. Without this mining project, the land remains a part of the Superior National Forest.	LAN01
<b>Sender Name (Submission ID)</b> Angie Simonson (47273)		
9284	The industry is what keeps us moving forward both economically and developmentally. Creating more industry based jobs will support not only those working directly for the mines but hundreds of supporting jobs.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Angie Simonson (47273)		
9285	The need for precious metals is not going to decrease anytime soon, if we don't mine here, it'll be done elsewhere and likely with less regulation and concern for the environment.	NEPA01
<b>Sender Name (Submission ID)</b> Anita Alcantara (35022)		
13298	The Boundary Waters Canoe Area Wilderness is the most beautiful area our Girl Scouts, Boy Scouts, and countless campers of all ages have experienced. It is extremely important to preserve it from impact of mining.	WILD02
13300	The precious clean water of the great lakes where Isle Royale National Park sits are also necessary to protect for continuation of life on earth.	WR111
<b>Sender Name (Submission ID)</b> Anita Gille (18317)		
4255	I am concerned about water quality and especially tailings pilings that will be located on top of the old taconite tailings basin that was designed in the 1950's before there was environmental safeguards and on top of streams to allow drainage through the tailings.	GT01, WR104
4256	If you go back and look at the draft EIS in figure 4.1.9, you can see that there are at least three streams running under the old LTV tailings site. One of those streams runs right under cells 1E and 2E where they plan to dump the PolyMet tailings and then into Spring Mine Creek.	WR167
4257	Even when the stream is filled over, water is still flowing under the channel where it has been draining for thousands of years. And Spring Mine Creek is already impaired for aquatic life as a result of past mining and past excessive levels of sulfate and mercury.	AQ11
4258	The SDEIS just assumes that all tailings wastewater will seep into the north side where PolyMet will have a row of pumps. But the SDEIS must specifically analyze impacts on water quality of seepage that would escape following historic stream drainage beneath the tailings basin.	WR056
4259	I also question the methodology used for creating the EIS and the summary document. I have attempted to read the summary and I found it very unclear....We know it's very complicated, however; and I can't understand the ultimate levels, such as mercury and sulfide.	NEPA07
11624	The SDEIS should include a cost-benefit analysis of the PolyMet sulfide mine proposal over the long term, considering all of the potential long-term costs. I do not want to see the taxpayers of Minnesota stuck with clean-up costs for centuries into the future, all for promises of up to 360 jobs for only 20 years. This also assumes copper prices remain high and cheaper mining locations do not materialize.	FIN01, FIN08, FIN10, SO07
13076	I would like to recommend a performance bond be required of PolyMet to cover all damages to the environment.	FIN08
<b>Sender Name (Submission ID)</b> Anita Kovacich (2916)		
641	Polymet[\'s NorthMet Project] will generate millions of dollars in state and local taxes to help support our economy and educational systems.	SO10
642	Polymet[\'s NorthMet Project] will keep jobs in Minnesota...[and] will keep our young and educated people from seeking jobs elsewhere.	SO10
845	I trust that Polymet can mine in an environmentally sound manner.	PD28
<b>Sender Name (Submission ID)</b> Anita Seeling (51501)		
3609	Twenty or so extra jobs now are not worth 500 years of pollution.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Anita Seeling (51501)		
10746	the rich run the country's economy into the ground. Then, bit by bit - they take advantage of our desperation by convincing the masses to help them to not only dismantle the labor force protections, but also the necessary environmental safeguards. Indeed, they portray these safeguards as responsible for the stagnant economy. Twenty or so extra jobs now are not worth 500 years of pollution. And, as West Virginia also illustrates - bankruptcy by the offending company is the usual "out" for them.	SO01
<b>Sender Name (Submission ID)</b> Anita Suzanne Tillemans (42951)		
12362	Greater than 90% of this water would be captured and treated using reverse osmosis, a process that poses risks as outlined in 2006 by the World Health Organization's report in Geneva, Nutrients in Drinking Water, Chapter 12.	WR143
12367	Has the SDEIS calculated the very real danger of RO processed waters on plant and animal organisms as well as the disposal of these concentratedtoxins?	VEG06, WR143, WR145
12370	Estimates of contamination in the SDEIS are based on models that do not take into account inevitable accidents and failures.	WR202
12374	the SDEIS has no bedrock groundwater samples available from theplant site and the tailings basin, and no testing was done in the Biwabik Iron Formation for these sites. For what reason?	WR008, WR071
12398	The report assumes that most all water in these wetlands is recharged by rainfall and that the underlying bedrock is of low conductivity. I could not find substantial proof of this in the report. There are no long term records and field reports of rainfall over many seasons and years. Even so, the assumption seems to be made that there are no fractures, no artesian aquifers ofsignificance in the area	WR010, WR053
12405	No substantive studies have been done to determine the recharge and discharge areas for all aquifers along the Laurentian Uplands, including the Embarrass and Partridge River watershed aquifers...How much of the pollution will discharge into unexpected waterways from contamination in the recharge areas? ...reports need to be produced on these flowages,There are few wells on site and very little detail concerning underground water flowage at the sites proposed for Polymet's operations.	WR007, WR008, WR071, WR091, WR135
12408	Do we know what vital waters are supplied by particular aquifers in the Laurentian Divide at the proposed sites?	WR071, WR120, WR135
12410	With inevitable variables over hundreds of years, and without additional, extensive, field work and research concerning these aquifers, what reliable calculations can be made to predict drawdowns, potential depressurization of artesian and upwelling of brackish waters among other possible dangers?	WR189
12416	What will the accumulation of polluted water from the mine over decades, hundreds of years do to the St Louis River estuary? The St Louis River is already an AOC.	WR107, WR109, WR111
12423	What of algae bloom, reduction of oxygen and creation of a dead zone at the mouth of the St Louis River and Lake Superior?	WR111
12428	Concerned members of the Ojibwa Nation have indicated that groundwater seepage is greatly underestimated...Without studies of rainwater, and seepage over many seasons and years, how can the SDEIS predict outcomes confidently?	WR060, WR070, WR071
12434	How many more trains will be traveling through and over the wilderness of Superior National Forest and the Arrowhead? How many more trucks? How many earth movers, ATVs, OTVs, roads, how much dust, cumulative noise pollution from 24/7 mining operations (explosions, drilling, digging, crushing, processing, hauling metal)?	N03, N07

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Anita Suzanne Tillemans (42951)	
12436	The scope of the SDEIS does not address the actual extent of operations related to this project and effects that will most definitely exceed the actual boundaries of the two sites and the transportation corridor.	PD30
12437	The SDEIS considers addressing pipeline failures and spills speculative and beyond the scope of the study. What then is a study based on assumptions and predictions hundreds of years into the future?	WR129, WR131
14760	The proposed copper mine in Babbitt should be a concern to all of us since it will threaten water resources in an extremely important hydrological area of the North American continent and at the source of the largest fresh water body in the world, our Great Lakes.	WR111
14761	Copper mining leaks sulfuric acid into waters above and below ground and is one of the worst polluting mining processes in the world historically. Metal mining requires prodigious amounts of water, and copper mining has historically degraded those resources.	WR001, WR023
14762	demineralized water[generated by reverse osmosis] has proved dangerous in many ways. It will aggressively attack contacted materials by dissolving metals and some organic substances in pipes, storage tanks, hose lines and fittings. Because of this, it poses an increased risk of filtering toxic metals into the groundwater, wetlands and streams at the source and particularly downstream.	WR131, WR143
14763	Without the protective or antitoxic protection of calcium and magnesium additional, increased risk of cardiovascular disease occurs in humans from drinking water treated by RO, and reserve minerals in the body are often depleted.	HU03
14764	the hazards of controlling contamination would continue into perpetuity. Discharges of mining wastewater would continue as long as it rains, with water seeping into pits and ponds and leaching of toxic mining byproducts into groundwater. Potential failure of tailings dams, concentrate spill into streams and wetlands are historically valid concerns and need to be addressed since these will add to the pollution.	WR115
14765	Clean up of polluted river beds and aquifers would not be possible. The damage done, no financial assurance would replace the irreplaceable. In addition, the cost of perpetual treatment of waters that would continue to spill and leach toxins into the environment forever...would outweigh the profit of a relatively few, finite years.	FIN10
14766	Wild rice beds can be found all along the St Louis watershed, rice beds the Ojibwa depend upon in this highly connected and diverse aquatic habitat.	VEG04, WR156
14767	Laws that were made to protect the environment within the ceded territory have eroded away...once the land exchange is made, ... much of the treaty obligations under the ceded territory and wildlife and wilderness protections will no longer have any teeth.	LAN05
14768	polluted water will affect not only flora and fauna that depend on these wetlands, it will, eventually, affect Lake Superior and the Great Lakes.	WET24
14769	The distributions and flowages along nonconforming wavy bedrock formations in the area should be prominent factors in the decision-making process and at the forefront of the SDEIS. The Laurentian Divide runs through the middle of the tailings pond at 1700-1800 feet and very little is documented to date about the complex underground flows from this area. In fact, there is more study necessary before we understand specific recharge and discharge areas in this divergent geological and hydrological area of the Mesabi.	WR008
14770	Once copper mining is begun, contamination of groundwater cannot be prevented in the Laurentian Divide. Water will be contaminated as aquifers are traversed, through cracks, joints, fractures, and bore holes in bedrock aquifers and in direct contact with waste rock as it is mined. It can also flow along bedrock under glacial drift to locations unknown from the site ofcontamination, seeping into and out of these mining pits and tailings bins without being captured.	WR010, WR195

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Anita Suzanne Tillemans (42951)	
14771	Once the mine is closed, seepage and discharge from mining pits of waste rock, slurry and tailings basins will continue into perpetuity. No reliable, extensive studies have truly been done, nor can they be, to determine how much water will actually seep into and from the mining pits and tailing basins at these sites over hundreds of years.	WR023, WR070, WR130
14772	water will be drawn continuously from surficial and possibly bedrock aquifers, as well as St Louis watershed streams and Lake Colby in order to mine copper for 20 years. ...what guarantees can there be that groundwater will not be mined as well, as levels of ponds, pits, and rivers are managed to maintain certain levels? It is impossible to predict the effect that global warming will have on water reserves, nor is it possible to predict weather from year to year.	WR086, WR180, WR181, WR182
14773	Wetlands destroyed will not be replaced in kind...Included in the areaof concern will be 100-Mile Swamp. ...These wetlands are open and continuous, one feeding into another along the entire watershed of the St Louis River.	WET04, WET19
14774	Once granted permits to mine, Polymet will, of course, set a precedent...Would NFS have granted these drilling permits if it had not considered allowing copper mining so close to theBoundary Waters Canoe Area Wilderness? Once noise, air, water pollution have been granted at these levels, even higher levels will then be more acceptable. It is easy to see then how lovers of wilderness, the BWCAW the Quetico ... might be threatened by a copper mine inBabbitt.	WILD02
14775	Could it be that we do not know enough about the aquifers that underlie the Laurentian Divide? Minnesota is a land of more than 10,000 lakes, a land of waters, water that has no boundaries essentially. When one area is polluted, the effects are felt like a ripple.	WR071, WR111
14776	Where little allowance has been made for fractured and folded metamorphic rock in the area, fault lines, and percolation from confined aquifers that are also in the area, it would seem that the report is flawed. This error could cause other faults in predicting leaching, groundwater effects, toxin releases and solute levels in wetlands, lakes and streams.	WR012
14777	Copper mining will pollute ...our fresh water, in an area of complex aquifers that depend heavily upon each, interconnected in ways that we have yet to understand. Without consideration for loss of wilderness, which would be great enough, pollution and drawdown of our water table on the scale that Polymet could bring would be disastrous for a much wider area than this report has addressed.	WR001, WR023, WR115
14778	What financial assurances would restore these priceless reserves of water?	FIN08
14779	Consequences will go beyond the limits of liability for Polymet, and their operations will endanger lands and waters that neither Polymet nor the National Forest Service owns...Although "direct" impacts are considered to be within the boundaries of mining operations, permanent, irreconcilable impacts will have no boundaries. Pollution will reach underground into the water table, above ground into our air, and down stream most certainly into our oceans through vital freshwater resources.	FIN11
14780	SDEIS promises that safeguards and standards will be established in the permitting process, but these are not given in this report and cannot be assessed for the public view.	PER35
14781	Is it correct that less than .004 of the mined material will be copper at the cost of so much pollution? A trade like this does not seem to be in our best interest.	SO01
14782	If concentrate spilled into a stream, it would settle forming sediment, highly toxic unless dredged which would have disastrous effects. This sediment would persist for decades and eventually end up in Lake Superior. Wetlands are susceptible to spills releasing slurry, return water, diesel fuel, solutes, leaching into water tables.	WET24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Anita Suzanne Tillemans (42951)	
14783	Reduction in wetlands due to degradation of habitat and wetlands ability to support fish and invertebrates would result in an incalculable loss of wildlife population abundance.	AQ24
14784	It is "reasonably foreseeable" that weather will change and is unpredictable, even in the short term. No scenario that forecasts over hundreds of years can be taken seriously. ...the water and environment will be permanently changed and that no mitigation will return our waters and wilderness to pre-mining condition.	GEN03
14785	Mining operations will cease along with the jobs and profit, long before the degradation has run full circle. What will Minnesota and the world have in return for a few years of jobs and cash if we fail to act as responsible stewards? There are no financial assurances that would cover the cost of such a tragedy.	SO01
14786	We need to take into account the over-reaching consequences of this project in an irreplaceable and unique, geological and biological ecosystem that is Northern Minnesota, the source of three of the greatest river systems in the North America	PER12
14787	What will be the consequences of the land exchange, once Polymet owns the surface and mineral rights to the land on which their operations occur? What powers will the NFS, BLM, DNR and other parties have and exercise to control and monitor damage to our environment then?	LAN04
14788	Downstream from the proposed Northmet project, where all mining water, sediment and dissolved particulates from this plant will eventually go, Jay Cook State park is home to 181 species of nesting and feeding fowl. There are bear, deer, wolves, coyote among 46 animal species in the park. Sax-Zim Bog in the St Louis River estuary is world famous wintering grounds for great gray, boreal, hawk owls and other boreal forest birds. Over 60,000 raptors migrate over Hawks Ridge National Preserve in the St Louis River estuary each year...The Laurentian Divide is home to 155 nesting birds and 40 wildlife species.	WI01, WI02
14789	In Embarrass, just north of the LTV site, there are birding and nature trails, river canoeing and fishing opportunities. At Babbitt, lies beautiful Birch Lake south of the BWCAW, both part of the Rainy River Watershed, so close that mining cannot help but affect the whole area.	LU06
14790	The Superior National Forest Scenic Byway tour begins in Two Harbors and goes through Silver Bay to Aurora through Hoyt Lakes over 145 miles of untouched wilderness with relatively few roads. There are wolves here and Canadian Lynx, only a few of the animals that are attracted to this area. Wolves are of concern in particular, since the DNR has still yet to make a count of the existing wolf populations after two hunting seasons. How do we know the threat to this vital apex predator without a study to determine its numbers?	WI01
14791	Polymet's trains will traverse open wetland networks linked to Dunka River, North River, Ridgepole Creek, Seven Beaver Lake, Swamp Lake, Big Lake, and Yelp Creek, among a few.	WR151
14792	There are 318 species of birds, 200 regular in the Superior National Forest of which 36 are uncommon, 30 rare and 61 very rare, among these the Pie billed Grebe and the Red breasted Merganser. With 155 nesting species, the SNF has the greatest number of breeding birds in any national forest. The BWCAW is of incalculable value biologically, ecologically	WI01
14793	The BWCAW is ...a popular wilderness area with over 200,000 visitors annually, with 1500 miles of canoe routes and 2200 campsites. Do we truly believe that copper mining so close to the entry points of this wilderness will not have significant consequences on these resources and the essence of this kind of experience?	WILD02
14794	This SDEIS, as stated, appears to be based upon "variability and uncertainty around many ... model input assumptions"- in other words, a best case scenario that, in spite of this, predicts 500 plus years of mitigation and pollution from 20 years of mining in the Arrowhead...Once the water is polluted and the ecosystem destroyed, one that took millennia to develop, we will be left with a toxic environment that will be changed forever	PER12

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Anita Suzanne Tillemans (42951)		
14795	The Arrowhead region is one of the crowning ecological jewels of this world...The no mining alternative is, above all, a choice for environmental diversity and sustainability.	WILD02
19312	water would be captured and treated using reverse osmosis, a process that poses risks as outlined in 2006 by the World Health Organization's report in Geneva, Nutrients in Drinking Water, Chapter 12...it poses an increased risk of filtering toxic metals into the groundwater, wetlands and streams at the source and particularly down stream	WR143
19313	Laws that were made to protect the environment within the ceded territory have eroded away... with the proposed land exchange this will be affirmed by further eroding these treaty obligations and allowing Polymet to operate outside of protections promised in the treaty.	PER08
19332	The SDEIS has no bedrock groundwater samples available from the plant site and the tailings basin and no testing was done on the Biwabik Iron Formation..more study needs to be done to get a clearer picture of the interaction between the bedrock and surface aquifers of the region... more study is necessary before we can understand specific recharge and discharge areas in this divergent geological and hydrological area of the Mesabi... what technology would be in place to prevent seepage from mining pits and tailings basins?	WR007, WR008, WR090
19338	what will the accumulation of polluted water [in wetlands] over hundreds of years do to the St. Louis River estuary.	WR111
19341	Once granted permits to mine, Polymet will... set a precedent...copper mining will...extend into the Rainy River Watershed... there are others [who] have been granted exploratory permits...Moving millions of tons of ore will have effects beyond pipeline, tracks, and roads within the corridor and mining site	CU04
19342	What financial assurance would restore these priceless reserves of water?	FIN08
19350	downstream of the proposed project, sediment and dissolved particulates.. Will eventually go [to] Jay Cook State Park, home to 181 species of nesting and feeding fowl	WI01, WI04
19351	a best case scenario predicts... 500 years of mitigation.. This does not mean that maintenance will no longer be needed... it means that the SDEIS stopped assessing damage	WR037, WR128
<b>Sender Name (Submission ID)</b> Anita Zager (6086)		
1026	As I look at the map of the mine site it is surrounded by wetlands and lakes. Would any other project requiring dangerous unproven chemical processes be approved by the state of MN if it sat in this location?	WET24, WR112, WR143
1028	How does the State of MN and PolyMet protect the water treatment for 500 years in any known or proven method both financially and chemically?What is the financial value of the current clean watershed over 500 years?	FIN01, FIN05
1031	Have economists reviewed this contingency of 500 years of water treatment in weighing the value of the minerals, cost of the project for 500 years and the potential value of clean water in 500 years?	FIN01, FIN05
1032	When human beings are involved in any engineering processes there are always mistakes, unforeseen consequences, catastrophic accidents. Do the principle leadership of PolyMet and their contractors have a record of lax and ignored oversight of environmental risks and laws?	PD23
<b>Sender Name (Submission ID)</b> Ann Burns (15663)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ann Burns (15663)		
783	the region's future will rely more and more upon sustainable resource management and an emphasis on the natural world that attracts tourism and retirement dollars to the area.	SO02
785	I am concerned about the long-term environmental impacts of the planned Polymet sulfide mine, and feel that the current plan does not do enough to protect our waters.	WR035
791	It is highly unlikely that PolyMet, as a business, will be here [in 500+ years] to keep paying for and executing on any water treatment requirements. Rather, taxpayers will pick up the tab. This plan does not do enough to ensure that the necessary financial resources, to treat waste water and remove sulphur contaminants, will be secured and reliably sufficient.	FIN01, FIN10
796	Further, the current plan is already insufficient in its planned water treatment scope. At the mine site itself, each year more than 5 million gallons of untreated contaminated water will seep into our ground water. At the tailing basin, more than 11 million gallons of untreated contaminated water will seep into our ground water each year.	PD03
802	The plan for waste water treatment [for over 500 years] is not based upon best practices; it is based upon hope and pretense, and should not be permitted.	PER04, WR037
<b>Sender Name (Submission ID)</b> Ann Campbell (715)		
443	I understand [the NorthMet Project] will create jobs but at what cost. 500 years of clean up?? For 20 years of employment.	SO01, WR115
<b>Sender Name (Submission ID)</b> Ann Dow (26131)		
15198	Exchanging land or allowing sulfide mining on Superior National Forest will be at the expense of too many of the other "multiple uses" the forest was established to provide.	LAN01
<b>Sender Name (Submission ID)</b> Ann Galbraith Miller (41085)		
13946	While jobs are certainly important, they are not a scientific argument based on the draft EIS. Those jobs will benefit a few, while the after effects of open-pit sulfide mining will potentially impair thousands of acres of watershed and the Lake Superior basin for HUNDREDS OF YEARS.	WR195
<b>Sender Name (Submission ID)</b> Ann Meany (43351)		
15575	This is a toxic operation. There is no way that copper sulfide mining can be compared to taconite iron ore mining. To allow something as toxic as sulfide mining anywhere in Minnesota, let alone right next to the Boundary Waters Canoe Area is insane.	PD27
<b>Sender Name (Submission ID)</b> Ann Possis (10115)		
337	We must be able to come up with livable-wage jobs without trashing our natural environment. Twenty years of jobs, many of which would be filled with people brought in from outside our area, are not worth hundreds of years of pollution of an irreplaceable part of the world.	SO01
339	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin. Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	AQ05, WR115, WR156, WR158

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ann Possis (10115)		
1426	..to urge you to deny the permits for this mine. It's not worth the risk and possible destruction of our precious natural resources in northeastern Minnesota.	PER35
1428	Pollution seeping from mine pits into the Partridge River surficial waters “would continue in perpetuity.”	WR035
<b>Sender Name (Submission ID)</b> Ann Reed (50228)		
11003	The next crisis we are facing is one of adequate clean water...we want jobs for people but what good are the jobs if everyone's water is contaminated?	WR115
12406	The next crisis we are facing is one of adequate clean water...We have a responsibility to protect the lakes and rivers we hold so dear. Please help us and reject PolyMet's plan.	WR195
<b>Sender Name (Submission ID)</b> Ann Schley (41854)		
2050	privileged live among beautiful wetlands and forests. ....our responsibility to protect those resources for the future. ....too much risk that dangerous chemicals will be released now or in the future from the mining operations.	WET24, WI04
<b>Sender Name (Submission ID)</b> Ann Snodie (11044)		
644	A few things to consider is whether our future WATER quality is worth more to us in the long-run (some predict 100's of years of possible damage) then job creation in Northern MN?	SO01, WR115
<b>Sender Name (Submission ID)</b> Ann Stangland (54899)		
18852	Do not support or legislate any technology that will polute our lakes, rivers and streams, especially in the BWCA.	WR111
18853	We don't want any chemicals affecting human or wildlife health and polluting our tourist vacation spots.	HU03, WI04
18854	Do what is in the best interests of the people not "big business."	SO04
<b>Sender Name (Submission ID)</b> Ann Vreeland (57337)		
18445	I feel very confident that they have done due diligence as far as their safety for the water and for the environment.	NEPA16
18446	We need the jobs up here and we need mining, and that has been our lifeblood for over 50 years, and I support it 100 percent.	SO10
<b>Sender Name (Submission ID)</b> Anna Blaine (54174)		
16394	I believe this mining should not be introduced in MN. It's degrading to our land and water!	WR195
16395	The water and area around where this mine is supposed to be is too precious to our environment to be compromised for this mining project.	WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Anna French (43064)		
11524	...the mine would impact our dwindling moose populations and the already endangered Canada Lynx by destroying their habitat.	WI01, WI02
11526	Other impacts, such as those to air and water quality, are still uncertain. The plan is incomplete and has not been carried out thoroughly.	NEPA15
11527	...[Regarding] the lack of a health impact study. For something that could have impacts 500 years into the future, it seems like we could take a little more time analyzing consequences.	HU01
<b>Sender Name (Submission ID)</b> Anna Hess (10352)		
508	We certainly hope that ore processing at the Polymet mine site is not part of the plans, because no matter how much scrubbing of the air takes place, the prevention of air pollution is impossible.,	AIR11
510	The creation of jobs, and economic influence of such a development is so far overshadowed by the possibility of water or air pollution that the development can not be allowed to proceed.	SO01
1455	The DEIS does not give adequate assurance that water and air pollution will not occur	AIR11
<b>Sender Name (Submission ID)</b> Anna Peterson (43809)		
11826	The SDEIS has not shown that mining of precious metals in rocks with sulfide can be done safely in the watery environment of NE Minnesota without serious contamination and destruction to wetlands and habitat.	PD01
<b>Sender Name (Submission ID)</b> Anna Runestad (44598)		
12054	The long term effects of choosing to open the Superior National Forest to mining is a choice that I don't agree with. It has short term benefits that do not out weigh the long term cost our state and our natural water habitats will suffer for years.	SO01
<b>Sender Name (Submission ID)</b> Anna Russel (58146)		
19982	The lives of countless plants and animals will be impacted, not to mention the entire ecosystem as a whole. The profits are not worth the risks involved.	GEN03, SO01
20021	We are NOT dependent on copper! Throw away your cellphone and take a walk in the woods! We need to be putting minds together to figure out actually proven environmentally safe processes to achieve our goals. Create more jobs to plant new trees and wetlands on the proposed sites.	NEPA06
<b>Sender Name (Submission ID)</b> Anna Sherman (15282)		
406	Another benefit of mining in Minnesota is the economical growth it will bring.	SO10
407	Mining in Minnesota would cause tremendous economic and financial growth as well as provide a large quantity of precious metals that are in short supply.	SO10
415	This procedure will grow Minnesota's economy by providing jobs for thousands of Minnesotans and extracting metals crucial for the manufacturing of countless products used in everyday life.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Anna Sherman (15282)		
417	Minnesota environmental standards are sure to protect the water and air from pollution, keeping wetlands and forests surrounding some areas of the mining procedure safe and healthy.	PER34
<b>Sender Name (Submission ID)</b> anna zirkes (43205)		
11557	I am concerned that the pollution created by this plan will forever change the Boundary waters.	WILD02
<b>Sender Name (Submission ID)</b> Anne (42498)		
7144	Why would a public agency allow a known source of mercury pollution to conduct such a business in such a interconnected water rich area right next to the BWCA?	WR111
7148	I do not see the DEIS addressing the concern about the impact of large scale mining on moose and lynx habitat.	WI02
7156	It is not in the public interests to “trade” vast tracts of biodiverse wetlands area in the BWCA area for land somewhere else that can just later be mined as well. I would urge the DNR to act on behalf of the interests of the public in preserving the integrity of the existing wetlands and not agree to any trades that jeopardize this important ecosystem and wildlife habitat for species of concern such as moose and lynx.	LAN01
9423	I do not see the DEIS addressing the concern about the impact of large scale mining on moose and lynx habitat.	WI01, WI02
9427	Request an assessment of the social impact issues of the project. Will the native people whose traditional way of life involves fishing and rice harvesting be placed at risk with this plan? ... impact be on the local recreational economy? ...impact the local way of life? Will residents become priced out of the housing market?	SO04
14684	Why would a public agency allow a known source of mercury pollution to conduct such a business in such a interconnected water rich area right next to the BWCA?	WR158
14685	Was an alternative explored by Polymet that does not impact wetland areas?	ALT13
14686	How will [seepage] be captured without liners? What happens when there is episodic flooding? ...Why is their even a consideration of the plan without adequate liners and a plan to clean any impacted water now not later?	WR021, WR035, WR077, WR127
14687	Even 30-40 years is too much of an impact to the area. The burden should be on Polymet to design mining plans with no risk to the drinking water in the area. I am confident that you would not allow a homeowner to conduct a business in the BWCA area that would jeopardize his/her neighbor’s well water.	PD03
14688	Too much has already been taken from the native people. We need to be protecting native traditions in the area not jeopardizing them. This is a social impact that remains is fundamentally incompatible with the Polymet plan. ...Will the native people whose traditional way of life involves fishing and rice harvesting be placed at risk with this plan?	SO02
14689	it is not in the public interests to “trade” vast tracts of biodiverse wetlands area in the BWCA area for land somewhere else that can just later be mined as well. I would urge the DNR to act on behalf of the interests of the public in preserving the integrity of the existing wetlands and not agree to any trades that jeopardize this important ecosystem and wildlife habitat for species of concern such as moose and lynx.	WET14, WI02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Anne (42498)		
14690	It would seem that any mercury release is unacceptable given the nature of mercury to accumulate in the environment.	MERC01
14692	What will the impact be on the local recreational economy? How will Ely becoming the site of an international mining operation impact the local way of life? Will residents become priced out of the housing market?	SO03
14693	What will be the impacts on the BWCA as the most desirable, unique, and frequently visited wilderness areas in the United States if the fish and water become polluted with toxic chemicals?	WILD02
14694	It makes no sense to risk the long term health of the many for the short term profit of the few. All burden of proof should be on Polymet to comply with the established environmental standards, no exceptions.	SO01
15273	The burden should be on Polymet to design mining plans with no risk to the drinking water in the area.	WR042
15274	Too much has already been taken from the native people. We need to be protecting native traditions in the area not jeopardizing them. This is a social impact that remains is fundamentally incompatible with the Polymet plan.	CR01
15275	It would seem that any mercury release is unacceptable given the nature of mercury to accumulate in the environment.	MERC01
15276	There is a looming water crisis. Risking pollution of this vast water resource is unconscionable and under no circumstances should be placed at risk.	WR111, WR195
15277	Request an assessment of the social impact issues of the project. Will the native people whose traditional way of life involves fishing and rice harvesting be placed at risk with this plan?	CR01
<b>Sender Name (Submission ID)</b> Anne Clark (40660)		
14254	Clean ground water is essential. Please don't risk something that can't be recovered, except by extraordinary means and centuries of time for short term prosperity.	SO01
<b>Sender Name (Submission ID)</b> Anne Elizabeth Haugan (45022)		
7085	Do we provide several hundred construction and mining jobs for a few hundred people for twenty to thirty years and pollute the watershed basin flowing into our great Lake Superior for hundreds of years, as well as polluting the air? ... Or [do we] protect this valuable watershed environment for hundreds of years?	AIR07, WR115
7086	Another great concern is dealing with Poly Met, a small new company, which has little accountability and the likelihood of the mining operation being turned over to Glencore Xstrata. This scares me as Glencore Xstrata has a poor environmental record, as well as treating their employees unjustly.	SO02
16791	Do we provide several hundred mining jobs and construction jobs for a few hundred people for 20 to 30 years and pollute the watershed basin into the great Lake Superior for hundreds of years? ... or [do we] protect this valuable watershed environment for hundreds of years?	SO01
16792	Another great concern is dealing with PolyMet, a small new company, which has little accountability and the likelihood of the mining operation being turned over to Glencore Xstrata. This scares me as Glencore Xstrata has a very poor environmental record, as well as treating their employees unjustly.	FIN01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Anne Elizabeth Haugan (45022)		
16793	Let's find alternatives that will provide jobs to better the Northeastern Minnesota economy, such as the solar panel industry on the Iron Range, tourism industry, or forest products.	ALT13
17289	Let's find alternatives that will provide jobs to better the Northeastern Minnesota economy, such as the solar panel industry on the Iron Range, tourism industry, or forest products industry.	SO06
18865	It is NO to providing jobs fo ra few hundred vs. saying yes to protecting the watershed basin to Lake Superior for hundreds of years.	SO01
18869	PolyMet has little accountability and this proposed mining operation turned over to Glencore Xstrata scares me. They do not have a good environmental record.	PER02
<b>Sender Name (Submission ID)</b> Anne Macaulay (54699)		
17787	Let us not be short-sighted and hasty in making decisions without all the [data]....	NEPA09
17788	I have lived here my entire life and want to continue living a healthy life. I feel this dream is being compromised by not thoroughly researching and believing in the past lessons from Reserve Mining in the 70s.	HU03
<b>Sender Name (Submission ID)</b> anne morrison (42907)		
8719	I am deeply concerned about the possible impact on the BWCA [Boundary Waters Canoe Area] posed by acid mine drainage from PolyMet's NorthMet project.	WR024, WR081
8720	PolyMet's web site claims that water that will be discharged from its project site would never enter the Boundary Water Canoe Area Wilderness lakes or streams.	WR024, WR081, WR111, WR175
8726	In reality, however, hydraulic conductivity testing is needed to determine the actual effect of [NorthMet] acid mine drainage into the waterways on the edge of the Boundary Waters.	WR071, WR081
8729	The proposed PolyMet mine site borders and is uphill from One Hundred Mile Swamp, which drains (in part to Langley Creek, which is a tributary to Rainy Lake in the BWCA watershed.	WR024, WR071, WR080, WR081, WR111, WR175
8731	Without hydraulic conductivty testing and measurements, PolyMet has no way to show that water entering One Hundred Mile Swamp will not then flow into Rainy Lake in the BWCA watershed.	WR024, WR071, WR080, WR081, WR111, WR175
8738	It is also a concern that the authors of the SDEIS have used incorrect maps which contradict the US National Atlas watershed map, with the goal of suggesting that mine waste water will not seep into the BWCA watershed.	WR024, WR071, WR081, WR111
8739	Significantly, the SDEIS claims that there is no delineated boundary for One Hundred Mile Swamp—while in reality, the boundaries of One Hundred Mile Swamp have been delineated, and are accessible at <a href="http://www.nationalatlas.gov/streamer">www.nationalatlas.gov/streamer</a> .	WR080, WR175
8741	...the SDEIS maps then omit the section of One Hundred Mile Swamp that drains into the BWCA watershed: whereas the National Atlas shows a 10-mile-long wetland that drains to both the St. Louis River and BWCA watersheds, the most recent SDEIS maps depict the One Hundred Mile Swamp as only six miles long, and as existing only on the St. Louis River side of the divide.	WR080, WR175

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> anne morrison (42907)		
8743	PolyMet's re-drawn and inaccurate maps would mislead a reader to believe that its proposed project [NorthMet] would have no impact on the Boundary Waters.	WR024, WR071, WR080, WR081, WR111
8749	Finally, there has been no baseline water testing in the Dunka River, Langley Creek, or anywhere else in the Rainy Lake watershed.	WR071, WR081, WR085
8751	Without...[baseline water] testing in the Rainy Lake watershed, there is no way to gauge the possible harm to the BWCA [Boundary Waters Canoe Area] and Quetico from PolyMet mine drainage.	WR024, WR081, WR085
8753	PolyMet must be required to correct its SDEIS to include accurate watershed mapping, with hydraulic conductivity testing in One Hundred Mile Swamp, with water quality testing for the BWCA watershed, and with a data-based statement of the impact of the proposed mine on BWCA water quality.	WR080, WR081
8757	I urge you to view the SDEIS critically, and to require PolyMet to provide correct and appropriate data so that the impacts of its proposed project can be accurately assessed.	WR072
<b>Sender Name (Submission ID)</b> Anne Stewart Uehling (54775)		
19463	Polymet does not have a plan for converting to a passive system at the plant site. Thus the need for high maintenance water quality equipment extends possibly into centuries.	GEN03
19465	Polymet (and the DNR) needs to explain how the existing conditions including plant and animal life [in reclamation wetlands] would be replicated in full.	WET04
19467	Models used for comparison of water flow, pollution, etc., are often models too dissimilar to be correct. ... Furthermore, the difference in bedrock type and structure fails to account for fracture and fissure patterns. According to the MN Geological Survey, there are faults under the mine site.	WR012
19469	A truly thorough study of economic impact needs to be made. Polymet claims over 360 jobs for the time of operation, Both the Forest Service and the recreation industry each provide that many jobs. The mine will cause the decline of property values and taxes, affect recreation... Mining will cause the exiting of the 55% of township residential property owners who are seasonal and thus cause a serious decline in tax income for townships. State agencies receive income from permitting and leasing, but local governments do not.	SO05
19471	The impact of one more source of contamination (no matter how small) on the St. Louis River watershed needs to be given careful consideration. The current iron mines are adding levels of contamination, often with waivers from the MPCA, and air borne pollutants arrive from elsewhere.	CU05
19472	Of particular concern is mercury, particularly methylmercury which has become a health hazard in the St. Louis River/Lake Superior estuary.	MERC03
19474	Many of the indefinites need to be filled in. Specifics for water flow calculations, reclamation plans for closure, long term water monitoring plans and financial assurance are either in documents available but not included in the SDEIS or left for future negotiations during the permitting process.	PD01
19475	mercury above 1 0 mg/L are harmful to wild rice, a plant harvested by Native American Tribes, particularly the Fond du Lac Band of Ojibwe whose reservation is on the lower reaches of the St. Louis River.	SO09
<b>Sender Name (Submission ID)</b> Anne Wetteland (54882)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Anne Wetteland (54882)		
19570	With all the risks, is it really worth it. How many states in the Union have an abundance of water like we do and we are willing to risk it? I say NO.	WR108, WR111
<b>Sender Name (Submission ID)</b> Annette Anderson (38646)		
11893	I believe that the Polymet Project would be safe for the environment and would have huge positive economic benefits.	SO10
<b>Sender Name (Submission ID)</b> Annette Heiberg (16225)		
10266	500 years of cost and responsibility should be assumed by the company that profits, not the residents of Minnesota.	FIN01
10274	It is unrealistic to expect mistake-free operation even for the twenty years of operation, especially when this operation is located in a state that has extreme weather conditions. And I find it very hard to have faith in a company that would not even take these normal conditions into consideration in their proposal. This seems to indicate an under-researched and incomplete proposal.	PD22
<b>Sender Name (Submission ID)</b> Annette Jaros (57169)		
18694	I oppose sulfide mining in NE Minnesota because of appalling and costly long-term impacts on irreplaceable natural resources. Science supports you in putting a stop to this potential desecration.	SO02
<b>Sender Name (Submission ID)</b> Annette Strom (39349)		
6130	Living in Duluth, I am so fortunate to have the largest surface area of freshwater nearly outside my door. We would like to keep our wonderful freshwater resources in this area. After over 30 years of clean up, we are almost able to say that the St. Louis River is not polluting our great lake. That time period compared with 500 years seems quite small, and yet that clean up has affected all of us in this area.	WR111
<b>Sender Name (Submission ID)</b> Annie Carlin (37600)		
16330	I do not support this copper cobalt mining venture and its highly probable irrevocable damage by exposing toxic contaminants to our water.	WR115, WR195
<b>Sender Name (Submission ID)</b> Annie Gardner (57978)		
19867	PolyMet has not shown that they can adequately protect Minnesota's environmental resources, especially our invaluable water resources.	PD23
<b>Sender Name (Submission ID)</b> Anon (1) (15728)		
13049	the boundaries & extent of the damage it will casue is totally false. We most not destroy this pristine natural exosystem in the name of profit.	SO02
13051	We must protect tribal homelands preople and resources.	CU11
<b>Sender Name (Submission ID)</b> Anon (12) (15731)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Anon (12) (15731)	
12913	if this project goes through, we might have another "Freedom Industries" debacle on our hands. Dump the toxic crap in our land and water, stick us with the dean up bill which could last hundreds of years, then file bankruptcy, take the money and run.	FIN10
<b>Sender Name (Submission ID)</b>	Anon (2) (15732)	
13142	The 100 mile swamp is far greater thanthe defined "boundary" as better examined by satellite imagery and the true wetland will allow a greater contaminant flow into at least two watersheds as studied by Dr. Eric Morrison	WET19
<b>Sender Name (Submission ID)</b>	Anon (6) (15736)	
13075	the environmental impacts [of the NorthMet Mine Project] seem too grave for the blith assurances of those who would most profit from this endeavor	SO01
<b>Sender Name (Submission ID)</b>	Anon (7) (15737)	
13091	mining in Minnesota is a tremendous economic driver for the state and region. Expanded mining of precious metals will have significant and sustained effect on economies of both.	SO10
13095	Costs of all associated products and services are higher when these raw materials must be imported, especially when using foreign sources that areunreliable or have unstable governments. There are also substantialenvironmental impacts when importing materials from countries that do not value environmental protection the way we do in our country.	NEPA05
13098	The Polymet project has been designed to minimize environmental impacts by reusing a brownfield site and existing infrastructure, minimizing disturbance ofwetlands and utilizing multiple safeguards to protect the environment.	PD28
13101	Polymet will provide a domestic supply critical metals needed in medical applications, electricity generation, catalytic converters, cell phones, computers and other essential products.	NEPA05
<b>Sender Name (Submission ID)</b>	Anon (8) (15738)	
13399	only 20 years after they begin mining the copper + nickel will be depleted. However the pollution will continue for 500 years[.] It will need to be contained and cleaned up somehow but it appears that nobody realy nows how	SO01
<b>Sender Name (Submission ID)</b>	Anon (9) (15739)	
13600	lakes, streams, rivers, and lall natural water sources would be polluted forever.	WR115
13603	There is no assurance the people of NE Minnesota will fulfill the jobs provided. Very likely, PolyMet will bring in their own people from out of state and out of the country to fulfill the jobs available.	SO06
13605	Accidents/Failures - with such mishaps sure to happen, will PolyMet pay the wages for lost days, lost health insurance, incidental expenses conoected with "lost" days?	FIN05
13606	500 years Water Treatment? -It is absdurd for PolyoMet to assure water treatment will be maintained for even 20 to 50 years.	WR115

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Anon (9) (15739)		
13607	The exploratory drilling at all hours -even the middle of the night - is infringing on inhabitants, property owners, campers, and their rights also to the serene, quiet of the NE or Arrowhead Region.	N01
13672	The Reservations' economy is dependent upon harvesting wild rice from lclean streams and lakes.	CR01
13678	How will PolyMet address the rights and the questions proposed by the Native Americans on land which is their's?	CR01, CR05
13683	How will seepage water be treated to assure it is safe for humans, wildlife, harvesting wild rice, etc. wild rice, etc.	WR070
<b>Sender Name (Submission ID)</b> Anonymous (54115)		
15977	Greedy companys only need pay fines when things go wrong.	FIN01
15978	Copper mining is not mining. It's destruction. I believe in iron ore mining. Please stop putting the two mining types in the same category.	PD27
16052	lead & aluminum--toxic metals for the young and old.	HU03
16383	I don't think you guys would bid a mine only for your benefit and there is other places you can find copper	ALT09, ALT16
16385	I think it's a wonderful ecosystem for the animals and it's a quiet, sacred place for Minnesotans	LU04
16386	Also I'm against the mine is because of the pollution.	GEN01
16387	The affects are environment would be negative and you could put it somewhere else.	GEN01
16829	I am concerned about the possible damages that the facility and the mine could do to the environment. I am also worried about the land that the Native Americans are connected to. I understand that the land is important to them. I know that in the treaties and other documents on your website, the mining company has said certain things concerning all of the concerns mentioned above.	SO01
17381	I think you should allow this mine, because it would be of great benefit to our economy.	SO10
<b>Sender Name (Submission ID)</b> Anonymous (3) (54333)		
16882	The mining will just harm the environment not help it. It will take twenty years to mine the area. That is just too long to be doing that to the environment. The area is around a beautiful place of nature. The mining will just ruin it by destroying trees and most likely some wildlife along with many other things.	WI01
16888	A lot of money [is needed] to clean the water after you are done mining and that will be years and years from now when we are done with that. We won't have the money to continue cleaning the water so we will just stop cleaning the water so then it will get polluted. If the water gets polluted then the environment will have a counter effect. The water is very important and that's what we need to live.	FIN11, SO07, WR128
<b>Sender Name (Submission ID)</b> Anonymous (Duluth) (1) (11516)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Anonymous (Duluth) (1) (11516)		
17077	Get a different job if you need to, something that isn't a risk or threat to the environment. Think about the long term – not only temporary employment.	SO01
<b>Sender Name (Submission ID)</b> Anonymous (Duluth) (2) (11517)		
2468	Costs too much to clean up!!! Who's going to pay? Too much of a financial risk, upon many detrimental environmental risks.	FIN01
17080	Temporary jobs to ruin the greatest aquafor in the world?	SO01
<b>Sender Name (Submission ID)</b> Anonymous (Duluth) (4) (11519)		
2470	Sulfide-mining companies should be putting their financial assurances where their mouths are. \$200 MILLION will not restore contaminated water to the original state. What is the average cost to clean up a Superfund Site? How many such sites are yet to be cleaned up?	FIN05, FIN08
2471	Water treatment is expected to be necessary for 200 to 500 years, if not forever. Is there a company or a government that has lasted that long? Adequate financial assurance may be important, but how likely would it be to solve the contamination problem, if no one is around to ensure treatment? What guarantee is there that the proposed treatment would work on all of the waters which could be affected? What about the wetlands? What about the groundwater?	FIN01
7039	Water treatment is expected to be necessary for 200 to 500 years, if not forever. Is there a company or a government that has lasted that long?	FIN01
<b>Sender Name (Submission ID)</b> Anschel Burk (39355)		
12839	[Allowing the mine is] ultimately threatening human lives, the Minnesota tourism industry to natural wonders like the Boundary Waters, and any other industries that depend at all on clean water.	SO02
<b>Sender Name (Submission ID)</b> Anthony B (44965)		
8353	Please don't compromise our clean water for pollution at any cost.	SO02
15903	Please don't compromise our clean water for pollution at any cost.	WR195
<b>Sender Name (Submission ID)</b> Anthony Taylor (54206)		
17641	A majority of us believe that building a mine next to the only preserved native area is not a good (or smart) idea. It is the HABITAT of animals. They need the boundary waters they have nowhere to go.	WI02
<b>Sender Name (Submission ID)</b> Antoinette Moran (406)		
36	The potential for the state to be stuck with >100years of clean-up plus the potential to harm important state water resources is just too great to justify a few hundred jobs for 20 years.	SO01
<b>Sender Name (Submission ID)</b> Antonia Cristofaro-hark (15752)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Antonia Cristofaro-hark (15752)		
12033	The environmental impact of these projects are not worth the temporary jobs and temporary industry.	SO01
17043	A 500+ [year] clean up plan is not fair to the generaltions to come and the minnesota wildlife areas and drinking water.	PD01
19036	[PolyMet] would leach sulfuric acid and other poisons metals into lakes and wetlands in the region and because of this the boundary waters landscape would be changed forever.	WILD02
19038	sulfuric acid could also leach into our drinking water and dramatically effect the health of the people.	WR041
19039	I like many Minnesotan citizens am not willing to compromise our most breathtaking natural landscapes for shorter-term economic benefit.	SO01
<b>Sender Name (Submission ID)</b> apeterson8083@yahoo.com (45146)		
8370	You would be fools to even consider any further, the detrimental damage polymet and sulfide mining would have on our aquafor	WR195
8374	This project is too expensive in the long run, for clean up.	FIN01, FIN10
8376	Why sacrifice our water for a few temporary jobs?	SO01
<b>Sender Name (Submission ID)</b> April Hughes-Brauner (43726)		
11943	Given that the mine in question is in one of Minnesota's most scenic and pristine areas, where water is of such abundance and purity I would like to voice opinion to the mine, especially of the threat to native flora and fauna, wild rice in particular.	VEG04, VEG10, WI13
<b>Sender Name (Submission ID)</b> Archie K Benham (47364)		
16944	Climate change and global warming are real issues. (...) The CONS <b>**far**</b> outweigh the pros. I do not want to take away from Minnesota's healthy environment.	GEN01
16945	The world does not need to farm Copper/Nickel anymore. Recycling can handle the demand.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Ariane Norrgard (57465)		
19514	If citizens of this community allow companies to mine copper and nickel at the expense of clean water, we are setting the stage for years to come. Fresh water is a more valuable, precious resource that will provide more wealth to Minnesota in the far future. PolyMet mining hinders Minnesota's ability to use water resources because of the detrimental effects copper nickel mining has on water and wild rice. Please consider protecting the boundary waters area, Lake Superior, and water quality as a whole by not allowing PolyMet (or companies like PolyMet) to operate within our region.	SO01, WR159
<b>Sender Name (Submission ID)</b> Arlene Renshaw (16252)		
10424	The [long-term] environmental price that would be paid [for this mining operation] is far too great to outweigh short-term profits for the mining company.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> armand ball (41095)		
14194	mining would...pose human health risks through contamination of drinking water and fish, seriously degrade the St. Louis River, destroy wild rice and irreplaceable wetland habitat, and harm Lake Superior that holds 10 percent of the world's fresh water.	GEN03
14195	[the mine would] provide a significant risk in the watersheds receiving the drainage from Polymet's waste rock and tailings complexes, given that two million tons of sulfur would be brought to the surface during mining, result in unacceptable and long-term water quality impacts, which exceed water quality standards	WR115
14196	All of this for a foreign corporation whose stated goal is to provide the first eight years of copper produced to China, without any plan to meet domestic needs in our country.	FIN04
<b>Sender Name (Submission ID)</b> Armando Santos (54203)		
17259	[mining is] going to destroy the beauty of the land	LU04
<b>Sender Name (Submission ID)</b> Arno A Kahn (54801)		
18151	My concerns center on the documented concentration of sulfur in the holding ponds which is a result of the mining process, as reviewed in the EIS. The likely leaching of this highly toxic sulfur into the surrounding lakes and streams would severely damage the ecology of our area. Elevated sulfur levels would decimate fish populations and reduce or eliminate other aquatic species. These waterways would change from the clear pristine watershed we all know and value.	AQ12
18152	The company has argued that all of this highly toxic water borne sulfur can be contained. Similar mines in other parts of the world and not situated in a massive fresh water basin have been unsuccessful in this regard.	WR023
18153	The EIS states a need to monitor and repair the holding ponds for at least 500 years! Clearly, no current corporation will likely be around 500 years from now Even the posting of bonds or setting up trust accounts would be unlikely to stop the dispersing of this very toxic pollutant [sulfur].	FIN01, FIN08
18154	I see little reason to think that mining precious metals in a pristine watershed that connects to our Great Lakes is a necessity. The short term financial gains and some employment aren't remotely sufficient to risk the inevitable pollution of our watershed. Once introduced into the watershed these pollutants will rapidly disperse, and we have no foreseeable technology to remove sulfur from billions of cubic feet of water.	NEPA02
<b>Sender Name (Submission ID)</b> Art Dale (42522)		
2437	With the experts, I perceive both a flaw in the model used and the lack of basic inputs into that model.	CR01, WR071, WR149, WR156, WR189
6750	The plan that projects no pollution seeping from the permanent mine site waste rock pile into the 100 mile swamp and that pups on the edge of the two mile wide tailings pile will capture 99.37 percent of seepage are based on substantiated assumptions. It is virtually certain that the amount of discharge into surrounding wetlands projected by PolyMet's plan is flawed and that the discharge will not meet water quality standards.	WET24, WR037, WR115
<b>Sender Name (Submission ID)</b> Art Lind (18131)		
3453	You [anti-mining people] keep talking about 200 to 500 years of water treatment. It doesn't say that. It doesn't say the treatment will be 500 years. It says, "Treatment will be determined using measured results," which is the way the law is designed to responsibly handle it. The 200- to 500-year timeframes used in the SDEIS model represents the durations that models were run, not to predict how long treatment would be needed.	WR190

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Art Lind (18131)		
13507	You have to have good-paying jobs to support young families. Tourism? Yeah, we like tourism. Tourism wouldn't make a pimple on a mining job's behind when you compare the economics each of those jobs produces. On the horizon is the next era of mining and the top-paying jobs that will come with the development of one of the world's largest deposits of precious metals.	SO02
<b>Sender Name (Submission ID)</b> ARTHUR (5936)		
1940	Most people do not realize the value that mining brings to their everyday life and the historical development of this country ... They take for granted the conveniences as though they are picked from the sky when in fact most are derivatives of mining processes in one way or another.	NEPA05
1941	many tens of millions of dollars have been invested, not only by Polymet, but the State of Minnesota and the Federal Agencies to process the best environmental alternatives known in modern technology to be the best that we can be.	NEPA16
1942	Not to utilize this vast resource and the economic benefits they will provide and allow the metals to be mined somewhere in the world not as attentive as Minnesota is HYPOCRITICAL!	SO10
<b>Sender Name (Submission ID)</b> Arthur Dorman (2997)		
12332	With unknown outcomes, it is essential for us to err on the side of caution, requiring total thoroughness in studying the matter, and total transparency in reports.	NEPA15
<b>Sender Name (Submission ID)</b> Asher (54721)		
18582	Sulfide mining has never been done in Minnesota and threatens wetlands, rivers, lakes and streams across the Arrowhead Region of Minnesota, including Lake Superior and the Boundary Waters Canoe Area Wilderness.	WET24
18583	Acid Mine Drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred.	WR023
18585	I have grave concerns about this project's potential impacts on our region's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations, and cumulative impacts from mining.	WI01
18586	The Federal land exchange of protected Superior National Forest land to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.	LAN01
<b>Sender Name (Submission ID)</b> Astrid Yankosky (49973)		
12991	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Audrey Cullen (18300)		
12725	Who out of that governmental agency is going to be around in 500 years to make sure everything is good? Not one of us breathing at this moment is going to be here. Who is going to take care of the future generations?	FIN01
12726	There is frogs, birds, deer, fish, moose, lynx, cougars, skunk, raccoons, et cetera, et cetera, that all depend on land. Why are we able to go in and tear it apart for our inability to conserve anything as a people?	WI01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Audrey Haynes (10337)		
505	Throwing away the natural beauty, a large source of income and state pride, in favor of the temporary income from mining is foolish and shortsighted.	SO01
<b>Sender Name (Submission ID)</b> audrey jiricko (44117)		
8061	From an economic standpoint, any short term gain for Polymet and addition of some jobs in the immediate future will be negated by longterm negative environmental and economic impact when the environment including something as precious as water quality is damaged.	SO01
8065	Heavy metals and toxic chemicals... will certainly impact the reproductive health of women living in the area as well as the development of embryos/fetuses... A lack of information regarding the specific pollutants may lead to catastrophic outcomes for individual women in the area.	HU03
8094	Overall, the project appears to focus on short term gain while ignoring significant negative long term impacts.	SO01
14902	More time is needed to investigate fully the potential outcomes for Minnesotans and the citizens throughout the world who travel to visit your beautiful state.	NEPA07
14903	What is the chance that decades from the mining of the desired material, the company will still be around to take responsibility and continue to try to clean up the surrounding area? History tells us not a chance.	FIN01
<b>Sender Name (Submission ID)</b> audrey kramer (40083)		
6988	The company chosen to head this overwhelming project is not trustworthy. Tell them to look elsewhere for their mining projects.	PD23
<b>Sender Name (Submission ID)</b> Audrey/Dennis M (39318)		
8048	PolyMet is a company with no mining experience and no substantial financial backing. The financial assurances for hundreds of years are not addressed in the SDEIS. This must be corrected.	FIN01
8051	The computer model shows that the water seepage will pollute for at least 500 years and must be treated for the entire time. This is totally unrealistic to expect this to happen. PolyMet is asking to be allowed to run a 500 years experiment that has never been tried before.	PD29
8097	In addition the computer model is known to have been run with incorrect water flow information. The water flow was greatly underestimated requiring the analysis to be completely redone	WR003
<b>Sender Name (Submission ID)</b> Audubon Minnesota (42897)		
4112	The entire Superior National Forest has been identified as an IBA...PolyMet proposes to exchange 6,650 acres of the Superior National Forest for private lands elsewhere in the region. Their mine would then be placed on the former public lands, destroying over 6000 acres of habitats of high biological diversity. Waste rock, tailings and open pit walls would pose a risk to the adjoining wetlands and waters for centuries, due to toxic metal leaching and acid drainage.	VEG02, WI02
4113	The St. Louis River, the major drainage from the proposed mine and processing site, borders large stretches of [the Sax-Zim Bog] IBA. Mercury, lead, arsenic, copper, nickel and other toxic metals that escape from the mining site and any water collection and treatment process will affect aquatic life and accumulate in birds and people who eat the fish or wild rice found in the river. This risk of toxic aquatic pollution will last for centuries.	WR111, WR115

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Audubon Minnesota (42897)	
4132	The SDEIS modeled the “proposed action” with 200 years of active water treatment at the Mine Site and 500 years at the Plant Site. The SDEIS in numerous locations indicates uncertainty about the actual duration of needed active water treatment, but acknowledges it is expected to be “long-term.” Tables and information in the SDEIS Water Modeling Data Package shows high sulfate levels, several times water quality standards in the collected seepage water at year 200 – indicating the need for treatment beyond this timeframe. Arsenic, lead, manganese, nickel, copper, and other toxic metals show similar exceedences, centuries after closure at the Plant Site. Many important facts such as these were not included in the actual SDEIS, obscuring important information needed by the public and agency decision-makers evaluating this proposal.	WR035, WR036
4133	The SDEIS acknowledges that some polluted water will not be captured for treatment – even under the best scenarios forecast in the SDEIS. Untreated seepage to the groundwater and surface water are noted in numerous instances in the SDEIS at the Mine Site, at the Category 1 waste rock dump, and at the Tailings Basin. The pit walls are another source of toxic leakage, particularly after the pits fill with groundwater following closure. These acknowledged sources of toxic runoff total tens of millions of gallons annually...The SDEIS provides no information about what pollutants and at what concentrations will be in the waters that will be captured and sent for treatment from the Plant and Mine sites.	WR002, WR035, WR070
4134	The SDEIS provides little information about the actual design, function and performance of the proposed “reverse osmosis” water treatment system, upon which so much depends to keep water discharges within standards.	WR143
4135	The SDEIS does not provide information on the constituents and concentrations of pollutants in the reject concentrate that contains the pollutants separated in the water treatment system.	WR147
4136	The SDEIS provides no information about the expected parameters of the water discharged from the water treatment systems to area waters.	WR147
4137	With centuries of toxic seepage generation from the mine site and waste piles, it is a near certainty that spills, leaks and discharges in excess of water quality standards will occur, creating a lasting risk to Minnesota’s waters. PolyMet’s proposed action asks Minnesotans to commit future generations to a significant, persistent pollution risk. The SDEIS obscures, rather than illuminates this risk, with important analysis not discussed in the SDEIS itself. Many important questions are left unanalyzed (e.g. how long will it take for tailings and waste piles and the pit itself to stop leaking waters contaminated beyond water quality standards?) or obscured in background reference documents.	WR086, WR195, WR202
4138	PolyMet’s proposed mine anticipates creating centuries of water pollution and neglects to examine alternatives such as lined waste piles and underground mining (discussed later) which could reduce the risk of water pollution in excess of standards...The proposed action provides a near certainty that toxic water pollution will pose a perpetual risk to the St. Louis River watershed and downstream Lake Superior: it must be rejected in favor of the “no-action” alternative.	ALT01, ALT07, ALT13
4140	The mine plan proposes unacceptably large direct (912 acres) and indirect impacts (up to 7350 additional acres) on wetlands, primarily in and near the mine site. PolyMet proposes to mitigate only directly impacted wetlands, while merely monitoring the actual indirect impacts to nearby additional wetlands totaling more than ten square miles. They plan to leave actual details of any mitigation for indirect impacts to later permitting. This information must be included in the environmental review documents available for public review, because the impacts are extensive and significant, and the destroyed and damaged wetlands include rare and fragile types that are difficult, if not impossible to replace (e.g. globally rare tamarack bogs and swamps.)	WET01, WET02, WET05
4141	The SDEIS proposes that more than two-thirds of the mitigation for the 912.5 acres of direct wetland impacts take place outside the affected watershed. This indicates the inability of this company to find mitigation sites within the watershed. With up to 7350 acres of indirectly-impacted wetlands necessitating mitigation in the future, leaving the details and locations of thousands of acres of future mitigation for permitting is likely to lead to massive amounts of out-of-watershed mitigation, which is unacceptable. The SDEIS is incomplete without details of wetland mitigation for the range of indirect impacts estimated in the document.	WET01, WET03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Audubon Minnesota (42897)	
4143	The SDEIS uses calculations of groundwater flow that have been shown to be grossly understated. Tribal hydrologists have been trying to bring this information to the attention of the cooperating agencies from within the process (SDEIS Section 8, MDO #7) while recent releases of internal documents, during the public review period, indicate agreement by DNR technical experts on this point. (Star Tribune, January 24, 2014.) The corrected information is vital to a fair review of the possible impacts of this project, as PolyMet’s premise that pollution can be contained is built on the idea that nearly all contaminated waters can be collected and treated to water quality standards for centuries. The SDEIS must be rejected as insufficient because it does not contain proper groundwater flow calculations, and any resulting necessary changes to water collection and treatment systems.	WR003, WR017, WR049, WR128
4144	The SDEIS uses extremely optimistic assumptions about the ability of the tailings basin seepage collection system to intercept and divert for treatment contaminated surface and groundwater. The document postulates the capture and treatment of more than 99% of seepage during operations, and in excess of 98% during closure...a period of centuries. (SDEIS 5-159/160) This defies rational thought and actual experience. These optimistic assumptions allow the entire document to portray minimal impacts to downstream waters, wildlife and ecosystems from toxic water pollution. This unrealistic assumption fatally flaws the critical analysis of downstream impacts, necessitating the rejection of the SDEIS.	WR018, WR020
4145	The SDEIS avoids analysis of possible failure scenarios for tailings dams and waste rock stockpiles that will become permanent landscape features. Instead the SDEIS postulates that perpetual regulation applying “design and safety requirements” and “adaptive management” to waste piles totaling hundreds of millions of tons of rock, negate that need for foresight. (SDEIS Section 5-546) This is an entirely inappropriate expectation of perpetual regulation, and transfer of the costs of remedial response to future generations that will see no benefits, only costs, from this project. The avoidance of this analysis in the SDEIS renders it incomplete and inadequate.	GT15
4147	The SDEIS avoids discussion of the detailed performance of the proposed active water treatment systems. The lack of information about design and expected performance, operational effectiveness, and contingency plans for water treatment when the plants are down for maintenance, repairs or replacement is critical. The premise of this document is that “pollution of waters and ecosystems will not happen because we will intercept and treat to water quality standards more than 98% of contaminated runoff.” The SDEIS lacks detailed information to support this critical assertion. Furthermore, without detailed information on water treatment, it is impossible to estimate long-term funds needed for the operation of these facilities for centuries into the future. The SDEIS cannot be considered adequate nor complete without all of this vital information.	WR017, WR018, WR070, WR128, WR143, WR144
4150	The SDEIS does not examine a number of alternatives which would potentially reduce environmental impacts...The 526 acre permanent, category 1 waste rock pile should be lined to reduce the seepage, and the potential for toxic runoff.	ALT07, ALT13
4151	The SDEIS does not examine a number of alternatives which would potentially reduce environmental impacts...The tailings basin should be lined to provide more certainty that the seepage to surface and groundwater is minimized. The projection in the SDEIS of collection of in excess of 98% of leakage without a liner would be somewhat more credible if a liner were in place.	ALT10, ALT13
4153	The SDEIS does not examine a number of alternatives which would potentially reduce environmental impacts...Underground mining should be examined as an alternative to reduce the impacts to wetlands, and associated habitats and species that depend upon those habitats, and as a means to internalize the costs of mining (transferring impacts from public natural resources, to company balance sheets.) The rejection of a full analysis of this feasible alternative is based solely on a constrained economic analysis (did not consider mining the full ore body, used point-in-time commodity values and mining costs, etc.) by PolyMet consultants which appears designed to “prove” this alternative is economically unfeasible. We agree with the Tribal position regarding the inadequacy of the cooperating agency review, and premature elimination of this alternative in SDEIS Section 8, MDO #5.	ALT01, ALT13

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Audubon Minnesota (42897)	
4155	The SDEIS is lacking in planning for reasonable contingencies and foreseeable problems which the project might face both during operations and after closure...[including] Extreme rainfall events, such as have been experienced in the region recently, which go beyond the traditional 100 year and 500 year calculations. Impacts to the water collection and treatment systems of such events should be considered and described. What effect will such extreme events have on the concentrated pollution contained in the water treatment pond, or on the reject concentrate from the reverse osmosis system? What are the plans to prevent toxic pollution from escaping into surrounding waters?...Breakdown and failure of any of the critical components of the water collection and treatment system...Contingency plans if the water collection system does not collect upwards of 98% of seepage from the tailings basin...[and] Plans for remediation of portions of the Category 1 waste rock pile if they do produce acid drainage due to inaccurate characterization of the rock, or natural variability of sulfate in the waste.	PD22
4156	The SDEIS does not adequately describe the content and fate of the “reject concentrate” from the reverse osmosis system upon which the claim is based that no water quality standards will be violated for centuries into the future. This reject concentrate will presumably contain a high concentration of toxic metals and sulfates – and be of a large volume. The SDEIS is incomplete and insufficient without this information.	WR143
4157	The SDEIS (Section 5-202) asserts that contact with Duluth Complex rock actually decreased mercury concentrations in rainfall, due to adsorption, going on to state that, “For these reasons, mercury released from waste rock and ore at the Mine Site is not expected to be a constituent of concern in groundwater seepage. The primary NorthMet Project Proposed Action-related source of mercury to the Partridge River would be the WWTF discharge.” ...We believe that this understates the risk of mercury release, and because the mercury is adsorbed and not absorbed, several important issues come into play: [1] adsorption sites fill and, once filled, mercury will flow through the system unimpeded, and [2] adsorption sites are unstable – situations such as changes in pH could cause a significant ‘dump’ of mercury from the adsorption sites, causing significant down-gradient pollution. This needs to be further considered; the SDEIS is incomplete without this analysis.	MERC20
4162	The St. Louis River, the major drainage from the proposed mine and processing site empties into [the Saint Louis River Estuary] IBA...Mercury, lead, arsenic, copper, nickel and other toxic metals that escape from the mining and processing sites and any water collection and treatment processes will affect aquatic life and accumulate in birds and people who eat the fish or wild rice found in the river. Sediments of the estuary could remain permanently polluted, with centuries of toxic pollution expected from the mining site.	WR111, WR115
4188	The SDEIS in several places states that, “mercury loadings are predicted to increase slightly in the Embarrass River (3 percent) as a result of the NorthMet Project Proposed Action, but would be offset by a larger decrease (5 percent) in the Partridge River, resulting in a net decrease in overall mercury loadings (0.6 grams per year) to the St. Louis River as a result of the NorthMet Project Proposed Action.” Assuming this is “net effect” assertion is true, the Clean Water Act does not allow “trades” wherein one water body has increased mercury that is proposed to be offset somewhere else. Increased mercury cannot be allowed in the Embarrass River. The proposed action must be adjusted to propose a manner to eliminate the increase in mercury loading to the Embarrass River.	WET18
4190	Wildlife Exposure and Sensitivity to Mercury: The SDEIS quotes portions of a document (Judd 2013) that discusses lesser levels of sensitivity to mercury in Bald Eagles and river otters, while neglecting to examine more thoroughly area wildlife species which are sensitive to mercury: the Common Loon and mink. (SDEIS Section 5-368)...It is misleading to discuss in depth the lesser sensitivity of some species to mercury toxicity, while neglecting a more thorough consideration of such toxicity to species such as Common Loon and mink. The SDEIS is incomplete without further consideration of the impacts of mercury on sensitive species.	WI01, WI04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Audubon Minnesota (42897)	
4192	The proposed mine will destroy 1718 acres of “Sites of High Biodiversity Significance” according to the Minnesota County Biological Survey. It is expected to destroy populations of nine plant species of state-listed Endangered, Threatened or Special Concern (ETSC) and “indirectly” affect two addition ETSC species. Seven hundred acres of “imperiled-vulnerable” or “vulnerable” native plant communities are included in this total, with the 495 acres of black spruce-Jack pine woodlands slated for destruction representing 20% of this community within the Laurentian Uplands subsection. (SDEIS 5-341)	VEG01, VEG02
4193	This is an unacceptably large impact [of 1718 acres of Sites of High Biodiversity Significance, nine state-listed ETSC, indirectly two ETSC, etc.] that could be avoided, were PolyMet to consider underground mining as an alternative.	ALT01, ALT13, VEG01, VEG02
4194	PolyMet’s proposed mine will destroy more than two square miles of designated critical habitat for the federally-listed Canada Lynx. It is stated that this habitat is unlikely to be restored to suitable habitat conditions for a period of over twenty years after mine closure. (SDEIS 5-364,365.)	WI01, WI02
4195	The SDEIS is incomplete because it fails to seriously consider underground mining which would avoid most of these impacts to this federally-listed species [(i.e., the Canada Lynx)].	ALT01, ALT13, WI01
4197	Moose are in trouble in Minnesota, with populations statewide and regionally on a steep downward trajectory. Moose are a state species of Special Concern. The mine proposes destruction of 2775 acres of key Moose habitat types.	WI01, WI02
4622	The SDEIS is incomplete because it insufficiently considers (hardly mentions) impacts to this important species [Moose], and does not consider alternatives to reduce the loss of Moose habitat, such as underground mining.	ALT01, ALT13, WI02
4623	"Financial assurance information to safeguard future taxpayers from financial liability is lacking in detail and provides no basis for the few figures cited in the SDEIS. PolyMet provides a few numbers in the SDEIS, asserting, for example, that long-term financial needs to run post-closure monitoring and water treatment systems centuries into the future might require \$3.5-6 million annually (SDEIS 3-138). The details of how these numbers were calculated, however, are missing from the document! The fact that the estimate is provided, indicates that the assumptions and calculations exist – they are not provided for public review, however. Small changes in assumptions about discount rates, inflation and rate of return on invested surety assets could make a difference of one or more orders of magnitude over the timeframe that PolyMet’s site is likely to need monitoring and care. It is not acceptable to maintain that this information is not required now, and will be provided only during permitting. This is a grievous omission given the hard-to-believe reliance on active water treatment for centuries to maintain water discharges within water quality standards. This omission alone is grounds for declaring this SDEIS incomplete and insufficient, and was cited as one of the reasons the EPA ranked the previous Draft Environmental Impact Statement “Environmentally Unsatisfactory-Inadequate.”"	FIN05, FIN08, FIN10, FIN13
4624	The SDEIS also does not describe how mitigation of thousands of acres of indirect wetland impacts would be financed. Costs of mitigation on this scale will require millions of dollars. The SDEIS has not proposed any mitigation for these impacts, nor financial assurance for wetland mitigation should it be required in the future. The lack of this information is a serious inadequacy of the SDEIS, and raises the concern that the state will fail to achieve its stated wetland conservation goal of “no net loss.”	FIN11, WET01
4625	The United States Army Corps of Engineers (Corps) should reject the Section 404 wetlands permit for the following reasons...PolyMet proposes unacceptably large direct (912 acres) and indirect impacts (up to 7350 additional acres) on wetlands, primarily in and near the mine site. They propose to mitigate only directly impacted wetlands, with two-thirds of the proposed mitigation to take place out of the affected watershed.	COE01, COE02, WET01, WET03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Audubon Minnesota (42897)	
4626	The United States Army Corps of Engineers (Corps) should reject the Section 404 wetlands permit for the following reasons...PolyMet proposes only to monitor the actual indirect impacts to nearby additional wetlands totaling more than ten square miles; leaving actual details of any mitigation for indirect impacts to later permitting or future regulatory actions. The SDEIS and application for a 404 permit is incomplete without information on how such large indirect impacts to wetlands at the headwaters of the St. Louis River system would be mitigated.	COE02, WET01
4627	The United States Army Corps of Engineers (Corps) should reject the Section 404 wetlands permit for the following reasons...The wetlands that would be destroyed by direct dredging or filling and those that would be damaged by indirect impacts are especially high quality systems. "Approximately 92 percent of the wetlands in the Mine Site are of high overall wetland quality..." (SDEIS 4-157) The DNR and USFS conducted ecological evaluations of the area in the 1990s: both concluded that a large portion of the Mine Site, called the "100 mile swamp" was of high quality because of such features as watershed integrity, the size of its wetlands, the presence of riverine ecosystems, and the large amount of interior forest present.	WET19
4628	The United States Army Corps of Engineers (Corps) should reject the Section 404 wetlands permit for the following reasons...The SDEIS acknowledges that, "The majority of wetlands that would be affected by the NorthMet Project Proposed Action would be 'difficult to replace' (coniferous bog, open bog, coniferous swamp, and hardwood swamp)" (SDEIS 5-313)....	COE03, WET05
4629	The United States Army Corps of Engineers (Corps) should reject the Section 404 wetlands permit for the following reasons...The SDEIS fails to seriously examine underground mining as an alternative to reduce the impacts to wetlands, and associated habitats and species that depend upon those habitats. It acknowledges that an underground mine would "reduce effects on wetlands, vegetation and wildlife habitat... (and would) reduce the scale and duration of potential water quality effects." (SDEIS 3-150) Despite this, the rejection of a full analysis of this feasible alternative is based solely on a constrained economic analysis (did not consider mining the full ore body, used point-in-time commodity values and mining costs, etc.) by PolyMet consultants which appears designed to "prove" this alternative is economically unfeasible. We agree with the Tribal position regarding the inadequacy of the cooperating agency review, and premature elimination of this alternative in SDEIS Section 8, MDO #5.	ALT01, ALT13
4630	The United States Forest Service (USFS) should reject the proposed land exchange as "not in the public interest" for the following reasons...The proposed land exchange circumvents a long-standing prohibition on surface mining in the area. "This project would involve open pit development of privately held reserved and outstanding mineral rights where the Forest Service manages surface resources. Most of the lands involved in the Project were acquired by the United States under the authority of the Weeks Act which restricts the Forest Service from allowing large surface mining as proposed by PolyMet." (Superior National Forest website) The lands proposed for exchange would not carry this protection, resulting in a loss of protection for USFS lands, and is therefore not in the public interest.	LAN01, LAN02
4631	The United States Forest Service (USFS) should reject the proposed land exchange as "not in the public interest" for the following reasons...The lands proposed for exchange, with one exception, do not come with mineral rights. Without the transfer of both surface and subsurface rights, nothing will prevent a continuing "shuffling" of public ownership via land exchange as severed mineral rights are developed. This is unacceptable and not in the public interest.	LAN04
4632	The United States Forest Service (USFS) should reject the proposed land exchange as "not in the public interest" for the following reasons...The lands proposed for exchange include more than two square miles of critical habitat for Canada Lynx, a federally-threatened species. The result of this exchange will be the destruction of this habitat, in exchange for existing habitats in the region: a net decrease in habitat for the Lynx and many associated species. This is not in the public interest.	WI01, WI02
4633	The United States Forest Service (USFS) should reject the proposed land exchange as "not in the public interest" for the following reasons...The land exchange would result in a net loss of 2775 acres of moose habitat, a species that is in sharp decline in the region. The SDEIS avoids analysis of the impacts to this important species (state listed as of Special Concern). This is not in the public interest.	WI01, WI02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Audubon Minnesota (42897)		
4634	The United States Forest Service (USFS) should reject the proposed land exchange as “not in the public interest” for the following reasons...PolyMet Mining Corporation refuses to consider a feasible alternative to their proposed mine plan, which would negate the need for this land exchange, leave most of the surface estate intact and available for habitat for wildlife, and maintain most of the hydrological functions of the wetlands and river systems: underground mining. The SDEIS rejects this technically-feasible mining system on the basis of an unsupported “economic analysis” which presents conclusions, without assumptions and methodologies. This renders the SDEIS incomplete and insufficient, and negates the justification for the USFS to consider a land exchange.	ALT01, ALT02, ALT06, ALT13
<b>Sender Name (Submission ID)</b> August W Haugan (57230)		
17176	I am concerned that leaching from the sulfides in the pit, waste rock, and tailings from the proposed PolyMet copper-nickel mine cannot be effectively contained after the mine is decommissioned.	WR129
17177	Furthermore, if permits are approved this could set a precedent for possible approvals of the Twin Metals projects and the leaching from those projects, could be disastrous for the BWCA watershed.	WR198
<b>Sender Name (Submission ID)</b> Avery Jorgenson (54343)		
17453	Polymet Mining seems to have a very set plan in place. I think that this plan is a good well thought plan because they are doing the best they can to not change to much of the surroundings. Personally I think the copper-sulfate mining will benefit MN. I think that it will benefit us by helping create a better environment and also finding better ways to get the resources we need.	PD28
17456	I agree with the land exchange. I agree because I think that Polymet is trying their best to make it fair but still get the resources they need to continue with this project. The Net will gain or increase most of the needed land and material from this land exchange.	LAN11
17457	This process will also affect the cultural resources greatly. Ways being, fish, plants, and animal species being affect either positive or negative. This project will also affect the people that are living in this area.	CR01, CR05
<b>Sender Name (Submission ID)</b> B Erickson (38678)		
11897	That beautiful region of our state generates 1.6 billion in tourism. Let's protect and preserve a national treasure... Let's not gouge away our future recreational areas.	SO02
<b>Sender Name (Submission ID)</b> B Graves (43114)		
10177	Although Minnesota requires mining companies to provide financial assurances to fund cleanup if the company goes bankrupt or is otherwise unable to perform the work itself, it is very difficult to predict the extent of the pollution and resultant cleanup costs. Also, assets of bankrupt mining companies are often awarded to other creditors.	FIN01
10205	Minnesota law requires PolyMet to put up “financial assurance,” a damage deposit that is supposed to cover the costs of cleaning up the site and treating pollution. However, in the PolyMet mine plan, there are no details of the amount and type of damage deposit adequate to cover the cost of treating polluted water for hundreds of years.	FIN05, FIN08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	B Graves (43114)	
17798	One peer-reviewed study found that, while all projects that were reviewed predicted they would not pollute, at least 76 percent of the time they still did. The same study found that 89 percent of mines that have polluted said they would not. It is this history that is one of the biggest reasons for worry about proposals to bring the mining to Minnesota. The industry says they won't pollute our prized waters, but they've said that before, and they've been wrong more often than not.	PD26
17805	The Minnesota legislature needs to first pass a bill similar to Wisconsin's "Prove It First" law that, before opening a mine, a company must be able to point to a similar mine to what it is proposing that a) has operated for 10 years without polluting and b) has been closed for 10 years without polluting.	PER25
17814	Wild rice is a significant resource for Minnesota tribes. Even low levels of sulfates are proven to kill wild rice stands, a fact recognized by Minnesota's protective wild rice sulfate standard. There are wild rice beds downstream of PolyMet. PolyMet must show it would not increase sulfate concentrations in these areas. However, it fails to do so. The mine plan inaccurately describes wild rice waters, understating the area that supports stands of wild rice.	VEG04, WR156, WR157
17816	The mine plan claims to reduce sulfates, but that assumes that expensive water treatment will continue for hundreds of years. Millions of gallons of untreated polluted water will escape every year, and the mine plan predicts an increased chance that water exceeding the sulfate standard will be released at times, years after closure.	WR107, WR128, WR156
17817	It's not just wild rice that suffers from too much sulfate. The toxic reaction that occurs in the much around the plant's roots can adversely affect all types of aquatic flora.	AQ13
17818	Moose have declined dramatically over the last decade. Minnesota suspended the moose hunting season and added moose to its "Special Concern" list in 2013. That listing should trigger analysis of Polymet's impact on moose habitat, but that analysis is lacking. Thousands of acres of moose habitat would be destroyed at the PolyMet mine site, and moose have been observed there. Protecting moose is a particular concern for tribal members, and there is no analysis of the cumulative impact on moose from the PolyMet project and other habitat disruptions.	WI01, WI02
17821	The Canada Lynx is listed as a threatened species under the federal Endangered Species Act. There are only 200 lynx in Minnesota. Lynx have been tracked on land adjacent to the PolyMet mine site, and lynx sign have been found on the site as well. PolyMet would destroy 1,450 acres of designated critical habitat for the Canada Lynx, habitat essential to the conservation of a threatened species. Fragmentation and loss of habitat puts the survival of the Canada Lynx in jeopardy.	WI01, WI02
17823	An important wildlife travel corridor near the PolyMet proposal risks being lost due to mining activity, and increased truck traffic may kill lynx along the road linking the mine and plant sites. Despite this, the PolyMet mine plan fails to analyze the cumulative impact on lynx from the proposal and other nearby projects.	WI01, WI03
17826	) PolyMet proposes the largest permitted destruction of wetlands in Minnesota history. PolyMet would dig up nearly 1,000 acres of high value peat bogs, part of the 100 Mile Swamp, a critical habitat for many plants and animals. This wetland is designated an Area of High Biodiversity Significance by the Minnesota Biological Survey. In addition, over 6,000 acres of wetlands could be damaged or destroyed by PolyMet changing the water flow. When you dig a deep hole in the ground, it fills with water. That water would come from surrounding wetlands, and could dry out and destroy them. PolyMet is required to replace lost wetlands, but they understate the area of wetlands they would affect, they fail to replace the unique habitat offered by peat bogs, and they propose replacements that are far from the mine site.	WET05, WET19, WET23
17838	PolyMet's electricity supplier, Minnesota Power, got 85% of their power from coal in 2013.	AIR02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> B Graves (43114)		
17845	Asbestos-like fibers are in the rocks at PolyMet. The nearby Northshore Mine was required to stop dumping their tailings in Lake Superior in the 1970's due to similar fibers. Studies show miners who worked in the Northshore and LTV mines have higher levels of mesothelioma. Extremely small fibers from asbestos-like minerals are being studied by the University of Minnesota to see if they caused some of the higher levels of mesothelioma. PolyMet would produce mineral dust smaller than what is regulated and has been studied. It is not known if these fibers would cause harm to workers or nearby residents since they haven't been studied adequately. PolyMet admits that "the potential exists for the release of amphibole mineral fibers from the proposed operations, which could pose a potential public health risk of uncertain magnitude."	AIR04
17846	The PolyMet water computer model assumes that there is little groundwater moving through the site. The result is that the model shows water moving very slowly, and pollutants sticking to soil instead of moving with the water. DNR hydrology data show that the PolyMet water model significantly understates the amount of water flowing in the nearby Partridge River. If this information is wrong, predictions about water pollution are in question. If the model is incorrect, and there is more water flowing through the site than it assumes, the polluted water from pits and waste rock will move more easily through the soil, and reach lakes and rivers more quickly. The water could also carry more pollutants than the PolyMet model predicts.	WR047, WR062, WR091, WR165, WR171
17850	PolyMet is proposing something Minnesota has never allowed before. The company's own computer models show that hundreds of years after the mine closes, water seeping into groundwater and flowing into streams and rivers at the site will be polluted with heavy metals and sulfates. Unless all of this water is captured and treated, the mine will pollute surrounding waters.	WR115
17852	Minnesota law requires that a closed mine site be "maintenance free," but PolyMet's mine plan calls for hundreds of years of monitoring and expensive water treatment. Worse, these models don't even show that the pollution stops after 500 years. They just stopped modeling at 500 years. In other words, the pollution could go on for even longer.	PER04
17856	Minnesota has never permitted a mine that would require hundreds of years of expensive water treatment. This public comment period is the best chance for the public to weigh in on whether the financial assurance required of PolyMet would be adequate, but there is only a brief mention of it in the mine plan.	FIN13
17859	There are several alternatives that should be considered and evaluated in the PolyMet mine that are simply discarded. These include whether the PolyMet proposal could operate as an underground mine instead of an open pit, and whether all of the waste rock created by PolyMet should be backfilled into the mine pits after closure.	ALT01, ALT03, ALT06
17869	Recognize Glencore as a responsible party for permitting.	PER02
<b>Sender Name (Submission ID)</b> B H Flora (45472)		
11482	PolyMet would require hundreds of years of expensive treatment of polluted water	WR128
11483	PolyMet would destroy thousands of acres of habitat used by threatened moose and lynx	WI02
11485	PolyMet's mine plan lacks analysis of human health impacts from mercury and asbestos-like fiber	HU01
11487	PolyMet's studies contain inaccurate water data that need to be corrected .	WR003, WR052, WR086, WR091, WR189

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	b wagner (39540)	
6333	Any and all profit from the mine [should go] into a trust fund to pay for any damages and clean up that is caused by the mine. Once the water and any other environmental damage(s) is fixed, then PolyMet can have what's left in the trust.	FIN01, FIN08
<b>Sender Name (Submission ID)</b>	B. J. Alexis (35452)	
13826	West Virginia, North Carolina, how many others have been damaged for years to come due to some form of mining or chemicals for mining. That should provide more than enough evidence to prevent any mining on or near the Great Lakes.	WR023
<b>Sender Name (Submission ID)</b>	Backcountry Hunters & Anglers (50932)	
7856	We respectfully request (for the reasons detailed in the report below: "Hunters & Anglers Question Northern Minnesota Sulfide Mining Proposals") that you reject the PolyMet Mining NorthMet SDEIS and deny permits (i.e., a permit to mine and a Section 404 wetlands permit) that would allow PolyMet's open-pit sulfide mine to irrevocably degrade Minnesota's waterways and watersheds for centuries, if not indefinitely.	PER35
7862	The best case scenario for the mine anticipates at least 500 years of polluted water that will have to be actively treated. And, not all of the polluted water will be captured and sent for treatment. Every year, 11 million gallons of polluted seepage from the tailings basin will enter groundwater without being treated. Every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater without being treated.	WR070
7863	The plan for at least 500 years of active water treatment violates Minnesota Rules (6132.3200) that call for the mine to be left maintenance free at closure. Over 167 million tons of reactive waste rock would be left on the surface after closure. Surrounding this would be a system to collect contaminated seepage that must be monitored and maintained for hundreds of years or longer. A synthetic and soil cover placed over the waste rock pile would require annual maintenance, repairing of erosion, and removal of plants that might perforate the synthetic material.	PER04
7864	A pit "lake" would be left whose water levels would need to be maintained through pumping to prevent contaminated overspills into the nearby Partridge River. A tailings basin pond would need to have its water levels maintained through pumping to prevent contaminated water from overtopping the dams and entering the nearby Embarrass River. A lengthy network of pipelines conveying polluted and treated water would need to be monitored and maintained for at least hundreds of years.	PD04, PD11, PD35
7866	And the proposed mine plan does not protect Minnesota taxpayers. The plan commits Minnesota to at least 500 years of polluted water treatment without providing critical information about how this will be paid for and who will be responsible for it. Details about financial assurance and a "damage deposit" the company provides are not outlined in the revised mine plan.	FIN01, FIN08, FIN10
7867	The public does not know how much 500 years of water treatment will cost, how the company will be held responsible for centuries of costly water treatment, or how the public will be protected from liability.	FIN01, FIN05, FIN10
7868	PolyMet makes a lot of rosy predictions, but the SDEIS shows that pollution from the mine tailings and waste heaps will last for at least 500 years and pollution seeping from mine pits into the watershed "would continue in perpetuity."	WR035
7869	This short-sighted sulfide mining proposal amounts to gambling with the future of our Great Outdoors, and Minnesota's nearly 2 million hunters and anglers—and the bait shops, sporting goods stores, resorts, fishing guides, outfitters, gas stations and hotels that depend on their business—won't stand for it.	SO04
7873	The Minnesota chapter of Backcountry Hunters & Anglers (BHA) is concerned about proposed sulfide mining operations in northern Minnesota. The two foreign-owned sulfide mining operations include PolyMet's NorthMet Project mine near Hoyt Lakes and the Duluth Metals mine adjacent to the Boundary Waters Canoe Area Wilderness (BWCAW).	WI13

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Backcountry Hunters & Anglers (50932)	
7879	Much of the debate surrounding sulfide mining revolves around whether companies have adequate bankruptcy-proof financial assurances in place to cover cleanup costs when (not if) acid-mine drainage (AMD) occurs.	FIN01
7880	Copper-mining operations, sometimes called “hard-rock mining” or “sulfide mining,” have left toxic scars across the country, with acids and sulfides leaching into streams, contaminating rivers and lakes, killing fish, and leaving dead zones. And PolyMet says acid-mine drainage (AMD) will be occurring at its proposed Hoyt Lakes mine “for up to 2,000 years.” Less than 1% of the ore would be produced as copper, etc., with waste rock comprising the remaining 99%.	PD01, WR023
7884	Mining of these ores is economically marginal, which is why they haven’t been mined previously. Such mining is highly energy intensive, making the industry susceptible to market fluctuations and vulnerable to bankruptcy.	PD25
7888	Former state Rep. Frank Moe is a guide and outfitter on the North Shore. Moe says when his old friends in the State Legislature consider whether to grant a permit to PolyMet to operate a hardrock sulfide mine, they should consider the other jobs at stake. Not just a couple hundred mining jobs, but jobs like his: there are 30,000 people working in the Northwoods recreation economy. Moe asks the legislators and commissioners whether tourists will still come north if the rivers and lakes are polluted.	SO02
7893	[Former state Rep. Frank Moe] wants PolyMet to make upfront financial assurances that will pay for any and all cleanup costs. He doesn’t want taxpayers stuck with the bill, but Polymet says the upfront assurance is a deal-breaker	FIN01
7898	PolyMet says new technology will virtually eliminate the threat of acid-mine drainage. If that’s the case, why won’t they provide up-front financial guarantees? Why is this a deal-breaker if there’s no concern about creating a toxic waste site? Answer: They must not believe their own rhetoric.	FIN01, PD25, PD32
7900	The very lifeblood of northern Minnesota’s economy is its healthy watersheds and waterways, but PolyMet’s proposed mine waste will be leaching sulfuric acid into those same northern Minnesota waterways “for up to 2,000 years.” Is 20 years of a couple hundred sulfide mining jobs worth 2,000 years of poisoned waterways and watersheds that will cost the rest of us millions, and possibly billions, to clean up?	SO01
7901	It’s no surprise that some of the early warnings have been sounded by resort owners, outfitters and township boards, who rightfully worry that the encroachment of a major mining district into the heart of the Superior National Forest near the Boundary Waters Canoe Area Wilderness (BWCAW) could fundamentally alter the tourism industry. The Stony River Township Board of Supervisors in Lake County passed a resolution rejecting sulfide mining. The township is located in the cross hairs of intense sulfide mining interest at the edge of the BWCAW.	SO02
7903	Minnesotans are beginning to realize that the economic revival touted by mining boosters is nothing short of wishful thinking. Mining has historically always been a boom and bust industry, and in the last 20 years sixteen hard rock mines declared bankruptcy. This devastates local economies dependent on the mining industry and forces taxpayers to cover the enormous cost of cleanup and restoration.	SO02
7904	And the jobs that mining companies offer will not bring prosperity. If mining companies’ promises were true, northern Minnesota would be the wealthiest part of the country after some 130 years of iron ore mining in the region.	SO02
7908	Fishing and hunting annually contribute more than \$190 billion to our nation’s economy, without turning waterways and watersheds into lifeless Superfund sites. Businesses that provide services and products to sportsmen—everything from guide and outfitter services to sporting goods stores, motels, grocery stores and gas stations—are the lifeblood of many rural communities.	SO02

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<b>Sender Name (Submission ID)</b> Backcountry Hunters & Anglers (50932)		
7925	The headwaters of two internationally important water resources, Lake Superior and the Boundary Waters Canoe Area, are found here, along with over 10,000 lakes and countless streams, rivers, and wetlands. In terms of acid-mine drainage (AMD) risk, you could easily argue this is one of the worst places on the planet for a sulfide mine.	WR001, WR111
7928	No sulfide mining should be permitted in Minnesota without genuine escape-proof assurances that the mine operators will be held fully accountable for any and all environmental harm they cause. Mining companies have compiled a long record of promising safe practices, breaking those promises, and then shifting the costs of dealing with the damage onto taxpayers.	FIN01
7929	As Bob Tammen, a BHA volunteer (and former miner) from Soudan, said: “The risks to taxpayers cannot be overstated. There’s no profit in operating clean-up at closed mines. Makes a lot more sense for parent companies to strip the subsidiary of assets and then file for bankruptcy, letting the rest of us pick up the bill.”	FIN01, FIN10
7933	we urge you to help ensure that no sulfide mining is permitted in Minnesota without genuine, escape-proof assurances that the mine operators will be held fully responsible for any and all environmental harm they cause.	FIN01
16452	In northern Minnesota, the underlying geologic complex consists of low-grade, highly disseminated metals which are very costly to extract, and over 99% of the mined material would be “waste.” ... Mining less than 1% sulfide ores requires blasting, crushing and grinding of rock, leaving behind tons of waste rock and tailings that will leach acid-mine drainage (AMD) and toxic heavy metals into the watershed.	WR070
16456	“Mining without harm” and “environmentally safe mining” may sound great, but there is zero evidence to back up the claim that sulfide mining can be done without causing devastating watershed pollution.	PD03, WR023, WR195
16464	“In Minnesota, the fishing industry alone supports 50,000 jobs and recreational fishing brings in \$3 billion a year,” adds Minnesota BHA vice-chair Erik Jensen, “which would be in jeopardy when acid-mine drainage (AMD) leaches into creeks, streams, rivers and watersheds, eventually ending up in Lake Superior. In the 1990s, acid drainage from the Formosa Mine polluted streams in Oregon and reduced the fish population by 90 percent.”	LU06, SO02
<b>Sender Name (Submission ID)</b> Bailey Rehnberg (39376)		
6347	Drainage and toxic run-off into the St. Louis River and ultimately Lake Superior is both a hazard to local inhabitants and a dangerous long-term decision. Water has become one of the most precious resources in the world and we must recognize both its crucial importance and its finite nature.	WR111
6348	After 20 years of mining, the taxpaying citizens of Minnesota deserve a detailed financial plan for how Poly Met will ensure 500+ years of water treatment. The fact that these assurances have not made it into the SDEIS scares me as a Minnesota resident and tells me that this company is not looking out for our best interest.	FIN13
6349	this mine would set a horrific precedent for both the health of Minnesota's wildlife and wilderness areas across the country. Please do not allow Minnesota to be part of this short-term economic project that will create pollution for hundreds of years to areas of beautiful and precious wilderness.	WI04
<b>Sender Name (Submission ID)</b> Banny Lesar (42547)		
15615	I think that the SDEIS properly addresses all concerns & shows that the extraction of the minerals by Polymet can be & will be done in an environmentally sensitive manner & the permitting process needs to proceed so that they can start production.	PER34

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Barb Cooper (52181)		
13348	The money for any potential cleanup after mining needs to be in a secure financial institution BEFORE the mining starts.	FIN08
16234	The “what ifs” on toxic effects to water are still unknown and cant be fixed quickly once it starts to happen	WR129
<b>Sender Name (Submission ID)</b> Barb Landes (43239)		
15812	The Environmental Impact study has not adequately addressed the elevated levels of sulfate and metals such as copper, cobalt, and nickel. The potential presence of mercury is also a threat to water based organisms.	WR107, WR108
15813	The amount of wetlands at risk (913 acres) is too great to warrant the minimal benefits of the project.	WET24
15814	The minimal number of jobs promised by this project is not worth the permanent damage likely to be done to the natural resources of this area. ... The minimal compensation promised for the workers to be hired is not worth the damage likely to be done to the natural resources of this area.	SO01
<b>Sender Name (Submission ID)</b> Barb LaVigne (39319)		
8121	We can not gamble our future for the promises of questionable environmental protection and short term jobs.	SO01
8124	Clean water is the basis of our economy in NE Minnesota. PolyMet's plan puts my business at risk.	SO02
<b>Sender Name (Submission ID)</b> Barb Swanson (11360)		
844	[The NorthMet Project]will have unacceptable environmental impacts ... in the sulfide-bearing Duluth Complex from the Boundary Waters to beyond Lake Superior.	CU01, WR024
<b>Sender Name (Submission ID)</b> Barb Wiklund (47376)		
12271	I believe that the SEIS had been thoroughly prepared and reviewed and demonstrates that industry and environment can co-exist and thrive!	NEPA16
<b>Sender Name (Submission ID)</b> Barbara A. Haack (21171)		
1944	The main jobs are to be given not to Minnesotans but to imported professionals therefore providing only minimum income for the people of our state.	SO06
1945	Poly Met mining experience of this type is limited therefore Poly Met could end up losing money and filing bankruptcy leaving the tax payers of Minnesota to pay the bill for all clean-ups	FIN01
16252	Permitting this type of mining operation opens the door to other companies who can use this permission to say, "You granted permission before, how can you refuse us?"	CU04
<b>Sender Name (Submission ID)</b> Barbara Adams (28242)		
10888	Any potential gain from jobs or what the industry provides must be offset by the cost and loss it could potentially cause.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Barbara Adams (28242)		
10889	If only those PR-like proposals and income/jobs charts and graphs by companies were mandated to show costs for clean-up and recovery, there would be a very different presentation and bottom line. And a very different legacy that politicians would be asked to make by signing any approval this PolyMet project.	PD25
<b>Sender Name (Submission ID)</b> Barbara Bottger (14850)		
13803	[t]his is about doing the right thing to create the world we want for future generations. That means working towards changing the way we manufacture goods that have been destroying our natural resources.	NEPA06
<b>Sender Name (Submission ID)</b> Barbara Crow (11547)		
2502	It's even more important for our future. I don't believe that PolyMet or the MN DNR or State of MN will be able to protect our watershed from the tailings leaching for 500 years+! The risk to our watershed does not justify the benefit of jobs for 20 years.	FIN01, FIN10, WR037, WR115
2502	It's even more important for our future. I don't believe that PolyMet or the MN DNR or State of MN will be able to protect our watershed from the tailings leaching for 500 years+! The risk to our watershed does not justify the benefit of jobs for 20 years.	SO01, WR195
<b>Sender Name (Submission ID)</b> Barbara Curphy (19963)		
1559	Please reconsider the continuation of this EIS and the project until we can comfortably say this mining will not now or ever damage our beautiful land and water.	LU06
14842	I am very concerned about the lack of knowledge of this type of mining. What kind of clean up will be needed. The amount of sulfuric acid into the ground water. The 500 year plan for clean up???	PD01
<b>Sender Name (Submission ID)</b> Barbara Durbin (42822)		
7289	Projected mercury emissions, degraded wildlife habitat, damage to wild rice stands, and the potential for long-term acidification of our streams, lakes, and groundwater make this a dangerous project.	VEG04, WI02, WR001, WR156
7289	Projected mercury emissions, degraded wildlife habitat, damage to wild rice stands, and the potential for long-term acidification of our streams, lakes, and groundwater make this a dangerous project.	WR018, WR020, WR117
7290	We depend on clean water for recreation, fishing, and tourism. According to the Minnesota Department of Revenue, in 2011 the tourism in Northeastern Minnesota generated over 700 million dollars and provided private sector employment to 16,000 people. Any denigration of our natural resources would put this money at risk.	SO02
7290	We depend on clean water for recreation, fishing, and tourism. According to the Minnesota Department of Revenue, in 2011 the tourism in Northeastern Minnesota generated over 700 million dollars and provided private sector employment to 16,000 people. Any denigration of our natural resources would put this money at risk.	SO02
7291	Demanding full financial assurance in the form of a full bond against potential cleanup costs should be a minimum requirement before proceeding with any new, high-risk mining...	FIN08

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Barbara Durbin (42822)

7291 Demanding full financial assurance in the form of a full bond against potential cleanup costs should be a minimum requirement before proceeding with any new, high-risk mining; however, even that would still not safeguard our waters from contamination. FIN08

18236 Polymet's mining plan is an unproven process, proposed by a junior mining company with no current operation to evaluate. They offer us only theoretical models with no real world testing. PD23

18236 Polymet's mining plan is an unproven process, proposed by a junior mining company with no current operation to evaluate. They offer us only theoretical models with no real world testing. PD23

**Sender Name (Submission ID)**    barbara erickson (46649)

9207 I am opposed to a foreign company mining on our soil PD23

16373 20 years of jobs for what this will do to the land, air and water , is shortsighted. It will not provide a man or family with a lifetime of work and wages. Please do the right thing , not the shortsighted money decision. SO01

**Sender Name (Submission ID)**    Barbara Fleishman (17662)

1983 I don't want to lose anymore of these precious birds d/t environmentally unsound practices by humans.! WI01

2107 The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for--information that is necessary to evaluate the environmental effects of this proposal. FIN01, WR035, WR128

2108 More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering. The SDEIS proposes no mitigation for the indirect wetland impacts. WET01

2109 ... sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior. AQ05

2110 Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl. WI01, WI02

**Sender Name (Submission ID)**    Barbara Imes (11568)

2215 Acid mine drainage in Western states has caused some of the largest and most contaminated Superfund sites... the Flambeau Mine in northern Wisconsin is the perfect example. It closed in 1997, but despite the removal of 7,400 tons of contaminated soil, it continued with runoff of copper at high levels of toxicity.... WR023

2215 Acid mine drainage in Western states has caused some of the largest and most contaminated Superfund sites... the Flambeau Mine in northern Wisconsin is the perfect example. It closed in 1997, but despite the removal of 7,400 tons of contaminated soil, it continued with runoff of copper at high levels of toxicity.... WR023

2216 It's not worth 20 years of mining, 350+ jobs, or the expectation that water leaching from waste rock piles will exceed water quality standards for up to 2,000 years! SO01

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**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Barbara Imes (11568)

2216 It's not worth 20 years of mining, 350+ jobs, or the expectation that water leaching from waste rock piles will exceed water quality standards for up to 2,000 years! SO01

7602 The very notion that a copper-nickel sulfide strip mine could function without polluting the ground and surface water with heavy metals seems to be discredited by the EPA's own records. They indicate that acid mine drainage in the U.S. has already polluted more than 12,000 miles of rivers and streams and over 180,000 acres of lakes. WR023

7602 The very notion that a copper-nickel sulfide strip mine could function without polluting the ground and surface water with heavy metals seems to be discredited by the EPA's own records. They indicate that acid mine drainage in the U.S. has already polluted more than 12,000 miles of rivers and streams and over 180,000 acres of lakes. WR023

14348 The incentive to move here...was to be able to live in an area that offered an opportunity to explore beautiful Northeastern Minnesota. ... Camping, hiking, canoeing, biking, wildlife, fishing, and more were only steps away from our back door. Now, it feels threatened. LU06

14348 The incentive to move here...was to be able to live in an area that offered an opportunity to explore beautiful Northeastern Minnesota. ... Camping, hiking, canoeing, biking, wildlife, fishing, and more were only steps away from our back door. Now, it feels threatened. LU06

14349 Wisconsin has a moratorium on sulfide mining and also initiated Wisconsin Act 171 which prohibits metallic sulfide mining until it has been proven safe through analysis of long term operation and the closure of similar mines. Minnesota needs to have the same "Prove-It-First" law in effect WR107, WR108

14349 Wisconsin has a moratorium on sulfide mining and also initiated Wisconsin Act 171 which prohibits metallic sulfide mining until it has been proven safe through analysis of long term operation and the closure of similar mines. Minnesota needs to have the same "Prove-It-First" law in effect PER25, PER35

14350 I can read and understand what the consequences would be if PolyMet...are allowed to build copper-nickel sulfide strip mines within the Boundary Waters watershed without providing adequate plans for monitoring and mitigation in the event of acid mine drainage or toxic leaching. PD29

14350 I can read and understand what the consequences would be if PolyMet...are allowed to build copper-nickel sulfide strip mines within the Boundary Waters watershed without providing adequate plans for monitoring and mitigation in the event of acid mine drainage or toxic leaching. PD29

**Sender Name (Submission ID)**    Barbara Jones (42541)

6810 It is essential to maintain a clean environment in the headwaters feeding into the Partridge and Embarrass Rivers and to Lake Superior. The main assessment tools used to predict contaminant loads are computer models and spread sheets to calculate water flows into, through, and out of the mining and processing sites. It is on the basis of this model that claims of sulfate levels and mercury, are calculated. The model also predicts that water treatment is likely to be required for 200 years for the mining site and 500 years for the processing site. Are these predictions realistic? WR035, WR070, WR189

6811 This rock generates acid run off and releases noxious heavy elements. Containment systems can be maintained and replaced with good planning and adequate funding, but liners under mountains of rock cannot. WR127

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Barbara Jones (42541)		
13488	One basic property a model should have is to predict current observed conditions from current measured input parameters...Experts in this are have made the following assessments:From the USEPA to MNDNR, USFS, USACE on Apr 5th 2013 referring to "Goldsim" modelling"A software quality assurance/quality control was not performed. Relying on professional judgment may not always be accurate, and/or others may have different professional opinions. Therefore, the results may not be scientifically defensible.The section of the Quality Assurance Plan pertaining to data quality objectives does not discuss numerical accuracy levels nor did it discuss their underlying rationale. Without this information, the adequacy of the data is indeterminable.	WR189
15594	I have not yet found information to give me confidence that the models can be trusted. Even worse I have found experts in the field who have severe reservations about the predictions. If the models are untrustworthy stop the project. If they are just poorly presented, do a better job. If the system is too complex for the experts to agree on how to proceed we should wait to do more research until we have a better understanding to make an informed choice.	WR189
15595	An item I expected but did not find in the DEIS is detail of contingency plans in case of natural or man-made disasters. What happens if a local wild fire destroys power lines and the site is evacuated for a week or more? Water treatment facilities are vulnerable to these events. There will also be man-made problems from accidents, operator errors, and poor design.	FIN05, NEPA08
15596	During the long period after mining stops, the DEIS estimates that ongoing expenses of \$3-6 million dollars per year are needed to treat water flowing from waste rock and maintain covers and dams. The climate, technical, social, political conditions even 50 years in the future are impossible to predict.	FIN05
<b>Sender Name (Submission ID)</b> Barbara Peterson (7153)		
492	The number of jobs PolyMet would create would be a huge benefit to the Iron Range and increase the tax base which in turn benefits our local economy. Including families, schools,and merchants.	SO02
<b>Sender Name (Submission ID)</b> Barbara Ritter (57245)		
17372	I am concerned about the impact the proposed mine will have on the state's water. The plan for treating polluted water does not have enough detail. How will this be paid for in the future? Is having polluted water for hundreds of years a reasonable by product of this mine?	FIN01
<b>Sender Name (Submission ID)</b> Barbara Ronningen (44833)		
7974	the risks are too great in a pristine environment.	SO01
16440	I am more concerned about the rush job the DNR has taken on comments. I agree with the Minnesota 2020 piece on the very short comment period.	NEPA07
<b>Sender Name (Submission ID)</b> Barbara Sellers (45687)		
15933	Polymet's mine plan fails to address mitigating the environmental impact of the mine by using underground mining, rather than open-pit mining. If the financial cost is currently too great to justify underground mining, the metals should be left in the ground until the demand for them justifies the cost of underground mining.	ALT01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Barbara Sellers (45687)		
15934	The precious metals that Polymet proposes to mine would currently be available in sufficient quantities if previously-mined metals were reclaimed and recycled. Polymet’s mine plan fails to address mitigating its environmental impact by reclaiming and recycling previously-mined metals instead of digging any mine, whether underground or open pit.	NEPA06
<b>Sender Name (Submission ID)</b> Barbara Teawalt (23422)		
14318	the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN01, FIN08, WR035
14319	sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream. Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons.	WI01, WI02, WI04
14320	four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
14322	PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part of the Superior National Forest the largest designated Important Bird Area in Minnesota.	WI02
<b>Sender Name (Submission ID)</b> Barbara Walker (14210)		
147	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
148	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
149	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Barbara Wirth (16942)		
1636	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever.	WR067
1637	The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility [HRF].	WR069
2078	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	NEPA04, WR195
2079	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	MERC02, WR041, WR115, WR189

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Barbara Wirth (16942)		
2080	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
2081	•The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
2082	•The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	PD07, PD29
2083	•The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet's own reports for the Canada stock exchange reveal significant faults and fractures.	WR010, WR012
2084	•The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17, WR067, WR126
2085	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	NEPA09, WR195
<b>Sender Name (Submission ID)</b> Barry Babcock (39440)		
7783	The historical evidence of contamination from sulfide mining is too risky to place our waters in jeopardy. The MN DNR should be more protective of our clean water assets than catering to the wishes of industry.	WR023
7791	According to "Earth Works" a 2008 study shows that the American taxpayer is stuck with a 70 billion dollar cleanup cost for sulfide mine AMD in our waters. We would be foolish to risk our waters to a 20 or 30 year mining project.	FIN10
<b>Sender Name (Submission ID)</b> Barry Bissonett (43007)		
11664	The PolyMet Environmental Impact Study is hypothetical. Even proven first methods can result in environmental disaster given the event of natural earth movement, equipment failure, or human error.	GT14
11665	Should companies be allowed to put at great risk the health and welfare of ecosystems, people, and wildlife? No, because individual citizens are not permitted to. ...The world's water crisis is closely related to the flaws of modern economics and politics. Greater than a crisis in jobs. is a crisis in our own values.	SO02
11667	Minnesota ought to first make mandatory the recycling of all metals.	NEPA06
<b>Sender Name (Submission ID)</b> Barry Peterson (39706)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Barry Peterson (39706)		
6501	... this toxic mining organization will be harming both wildlife and humans for over 500 years. There is just too much ground water around that area to risk poisoning citizens and guests who depend on potable water.	WI04, WR001, WR041, WR114, WR115, WR195
14066	How is it that a 90-day response period will end on March 13, 2014 when citizens have not had an adequate time to know about the horrific pollution this will cause in inhabited regions, and near regions where a substantial water table exists? The comment period should be extended until June 10, 2014.	NEPA07
<b>Sender Name (Submission ID)</b> Barry Shoultz (20022)		
1668	I am opposed to the mining proposal due to likely negative impacts on our natural resources which may never be corrected once they occur.	SO02
<b>Sender Name (Submission ID)</b> Barry W. Tungseth (10161)		
361	for a 20 year life span of a mine that will not even complete the working lifetime of one single long term employee, the risks out weigh the bennies.	SO01
362	Clean water is FOREVER. Mining is not.	WR115
<b>Sender Name (Submission ID)</b> Barry Wolfe (11644)		
2339	What is the significant short term ....and long term...environmental impact of the PolyMet proposal? A detailed cost analysis should be required	SO04
2339	What is the significant short term ....and long term...environmental impact of the PolyMet proposal? A detailed cost analysis should be required	SO04
2340	How would PolyMet’s “intentional surface discharge” be treated if they are depending on a reverse osmosis plant that will not be built until 40 years after starting operations?	WR143
2340	How would PolyMet’s “intentional surface discharge” be treated if they are depending on a reverse osmosis plant that will not be built until 40 years after starting operations?	WR143
2341	Specifically, how would the MPCA monitor and enforce mercury, sulfates and other water quality standards in the PolyMet project? What would be the cost analysis of monitoring and enforcement?...the cost analysis of monitoring and enforcement? .... the cost analysis for twenty years? 100 years? 200 years? 500 years?	PER06
2341	Specifically, how would the MPCA monitor and enforce mercury, sulfates and other water quality standards in the PolyMet project? What would be the cost analysis of monitoring and enforcement?...the cost analysis of monitoring and enforcement? .... the cost analysis for twenty years? 100 years? 200 years? 500 years?	PER06
2342	How would PolyMet’s proposal safe guard te citizens of Minnesota, and the United States tax payers, from paying costs related to health, air quality, water quality and environmental clean up costs in the next 20 years, 50 years, 100 years and beyond?	FIN01, FIN10
2342	How would PolyMet’s proposal safe guard te citizens of Minnesota, and the United States tax payers, from paying costs related to health, air quality, water quality and environmental clean up costs in the next 20 years, 50 years, 100 years and beyond?	WR035, WR036

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Barry Wolfe (11644)		
2343	Disasters happen, where is PolyMet’s back up plan on anything related to ground water contamination by internal or external unforeseen problems? What is the Minnesota DNR plan when it happens?	WR130
2343	Disasters happen, where is PolyMet’s back up plan on anything related to ground water contamination by internal or external unforeseen problems? What is the Minnesota DNR plan when it happens?	WR130
8548	How can the public be assured reverse osmosis will work if it is truly in the theory stage now and has not been used in any mine? If PolyMet is so sure reverse osmosis will work, why hasn’t the federal government used the idea to clean up sites such as the Berkeley Pit in Montana?	PD03
8548	How can the public be assured reverse osmosis will work if it is truly in the theory stage now and has not been used in any mine? If PolyMet is so sure reverse osmosis will work, why hasn’t the federal government used the idea to clean up sites such as the Berkeley Pit in Montana?	PD03
<b>Sender Name (Submission ID)</b> Bart and Lynn Galle (54498)		
18126	...the Supplemental Draft Environmental Impact Statement (SD EIS) is insufficient and should not be approved. It lacks vital information about long-term water treatment and how this will be paid for.	FIN01
19041	[The SDEIS] lacks vital information about long-term water treatment and how this will be paid for.	PD03, PD25
19042	The information available in the report leads us to believe that this mine would be extremely detrimental to the water quality and wetland habitats in this area.	WET24
<b>Sender Name (Submission ID)</b> Bart Sutter (11356)		
263	the SDEIS offers no detailed analysis of the possible effects of the proposed NorthMet operation on moose.	WI01
<b>Sender Name (Submission ID)</b> Barton Sutter (42776)		
6727	The proposed plant site occupies a natural water source. There has been no study regarding the source of the water at the present site and whether or not the area is prone to subterranean water migration by way of natural permeability or existing fractures. Any spill at the site could use such existing routes to dangerously taint the local fresh water system (page ES-5 and 4-43 through 4-44). Why has such a study not been conducted?The SDEIS states (ES-36 paragraph 2) that there is an expected case that stormwater runoff will include lead beyond acceptable levels. It also states (ES-36 paragraph 5) that the NorthMet project would increase the amount of mercury in the Embarrass River. These toxins pose serious risks to plant, animal, and human life in the immediate vicinity and also downstream. The SDEIS admits that the project will pollute the Embarrass River and other streams but pays scant attention to the fact that these streams flow toward and into the St. Louis River, which is, itself, the largest tributary of Lake Superior. Why is there no detailed analysis of possible pollution of the St. Louis River?	WR010, WR024, WR071, WR081, WR099, WR125
8584	Sulfide-bearing rock exposed to air and water yields sulfuric acid, which results in forms of pollution that will last at least 500 years... copper-nickel mining companies have a terrible history of leaving environmental damage in their wake--but it is least dangerous in arid settings. Why would we allow this kind of mining in our region, one of the world's premiere sources for fresh water?	WR001, WR023
8587	The proposed plant site occupies a natural water source. There has been no study regarding the source of the water at the present site and whether or not the area is prone to subterranean water migration by way of natural permeability or existing fractures. Any spill at the site could use such existing routes to dangerously taint the local fresh water system (page ES-5 and 4-43 through 4-44). Why has such a study not been conducted?	WR012, WR071

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Barton Sutter (42776)		
8590	The SDEIS states ...that there is an expected case that stormwater runoff will include lead beyond acceptable levels [and that] the NorthMet project would increase the amount of mercury in the Embarrass River. These toxins pose serious risks to plant, animal, and human life in the immediate vicinity and also downstream.	VEG06
8591	The SDEIS admits that the project will pollute the Embarrass River and other streams but pays scant attention to the fact that these streams flow toward and into the St. Louis River...Why is there no detailed analysis of possible pollution of the St. Louis River?	WR111
8592	the SDEIS appears to be grossly inadequate and should be rejected.	NEPA15
14536	The SDEIS states (ES-36 paragraph 2) that there is an expected case that stormwater runoff will include lead beyond acceptable levels.	WR082
14537	[The SDEIS] also states (ES-36 paragraph 5) that the NorthMet project would increase the amount of mercury in the Embarrass River. These toxins pose serious risks to plant, animal, and human life in the immediate vicinity and also downstream. The SDEIS admits that the project will pollute the Embarrass River and other streams but pays scant attention to the fact that these streams flow toward and into the St. Louis River, which is, itself, the largest tributary of Lake Superior. Why is there no detailed analysis of possible pollution of the St. Louis River?	VEG06
<b>Sender Name (Submission ID)</b> Basil Loney (54868)		
19361	Why isn't the Swiss company [Glencore] seeking the permit if they have ...experience mining these minerals rather than creating a subsidiary or dummy company to do it?	PER02
19364	What is [Glencore's] history and record everywhere it has operated historically and currently?	PD23
19368	I do not believe these liners [used to insulate the tailings from escaping into the environment] will maintain their integrity over time...do you have the research that shows the science that liners will last? If you don't how can you approve the permit to operate?	PD07, PD08
19373	...a company spokesman... could not comment on the financial package that the company would have in place to protect the environment over the long term, how will you deal with this? Why isn't this information available or at least a plan now and not later	FIN01, FIN08
19384	I was at the January meeting in Saint Paul and tried to get information from the DNR & EPA representatives there about pollution issues relating to long term tailings control and safety issues...but I only got vague general replies to the questions...it would have been reassuring to me to meet an older employee and even a scientist that would make an effort to explain what the DNR & EPA actually know about issues involving tailing storage.	NEPA11
19385	I would regret that northern families would not have jobs if this mine does not exist but this is not iron mining and the consequences would be high is the state government makes a mistake.	SO01
<b>Sender Name (Submission ID)</b> Becca Krasky (57190)		
18646	I can't imagine the havoc and destruction Polymet mining near the Boundary Waters would cause. ... Our wilderness is priceless.	WILD02
<b>Sender Name (Submission ID)</b> Beck Austin (39709)		
6528	We are suppose to be good stewards of the land. This is not about jobs etc. It is about taking care of what we have been entrusted with.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Beck Austin (39709)		
6529	Leaks and spills can never be cleaned up, really they can't. Please don't allow this to happen Please!	WR070, WR195
12966	We are suppose to be good stewards of the land. This is not about jobs etc. It is about taking care of what we have been entrusted with...Leaks and spills can never be cleaned up.	SO02
<b>Sender Name (Submission ID)</b> Becky Ault (44084)		
14914	I feel strongly that sulfide mining should not be allowed in NE Minnesota until it has been thoroughly explored.	PD32
<b>Sender Name (Submission ID)</b> Becky Erickson and Dan Sullivan (40122)		
6687	the SDEIS indicates few cumulative effects, there are many unknowns and a significant number of assumptions contained in that report. We know for certain that other similar mines have had measureable adverse environmental impacts.	CU14
15298	We also know that mining companies have poor track records for safety and environmental concerns. Given the fragility of the environment in the vicinity and the potential for long term adverse impacts, I would encourage the DNR to decline this permit.	PER35
<b>Sender Name (Submission ID)</b> Becky Hall (41645)		
2146	Having participated in the public comment events, reading the SDEIS, visiting with PolyMet officials at their site as well as reviewing information provided by the three governmental co-lead agencies (MNDNR, USACE and USFS), I am very confident that each entity has done thorough and extensive work to address the environmental concerns of this project and it should be permitted to move forward with its construction and production of the mining facility at the former LTV site in Aurora, MN.	PER34
2147	The argument that it will take 200-500 year to treat the water from the site is factually incorrect. What the model does show is that PolyMet can comply with Minnesota's laws, some of the strictest in the nation, regarding environmental protection of its lands and water.	PER34, WR036
2148	I also learned, after visiting PolyMet, that even at the site, should any water inadvertently escape the "lined" tailings basins, its acidic level (after being treated at the site) is well below the agencies requirement as well, about the same acidity as milk for that matter.	WR147
2149	Additionally, PolyMet has already committed somewhere between \$100 – 200 million for water treatment, clean-up and mitigation once the plant is closed. Along with already investing millions of dollars in the permitting process over the last decade, PolyMet is also committed to investing millions more in leaving its home, once the mining is complete, in the best condition as it received it.	FIN16
2150	I support this project wholeheartedly rather than remaining dependent on these [precious metal] resources coming from other countries with less environmental regulation and more harm to their environments.	NEPA05
2151	this project has a huge economic impact on our region creating hundreds of great paying jobs for families – 360 full-time jobs, 600 more related jobs, 2 million construction hours, and increased tax revenue that benefits our communities and education system.	SO10
<b>Sender Name (Submission ID)</b> Becky Milanese (54766)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19769	Page ES-38- If the mine is permitted, who will do the monitoring of the wetlands to see if they being affected? These are high quality wetlands as noted on pages 5-224. No determination has been made for replacement but there is a potential for a very high number of acres of high quality wetlands to be affected indirectly as well as directly with as many as 6,498-7,250 acres to be affected. Much of this affect will be from the mine's drawdown of groundwater for processing of ore plus seepage from the tailings basin. Paragraph 2. Page ES- 38- Wow, loss of a huge number of acres of High Biodiversity native wetlands plant communities! Reclamation after mining will not restore the loss of this type of native plant community that has been undisturbed for many years. None of the properties being proposed for exchange will have such Biodiversity in such high number of acres? Is this an acceptable loss? Paragraph 4.	WET01, WET02, WET14
19770	Watershed Restoration- Page 3-71 In the 5th paragraph, who will do the evaluation for conversion to wetlands? McFarland Lake Tract (Tract 5)- I do not know what G-LA-51 is and it does not appear in the Abbreviations section. The only thing that Tract 5 offers is proximity to McFarland Lake. It has no wetlands to assist with replacement of wetlands. Page 4-46- Paragraph 2- The different types of wetlands were not well defined. What are ombrotrophic wetlands? It would have been better to put something in the Glossary or give a much clearer explanation than that provided. Effects are difficult to determine when you cannot understand the terminology.	WET16, WET21
19771	4.2.3 Wetlands Page 4-136- Please see comments in this document for Page 4-447. What is shrub-carr? Will these wetlands be replaced with similar high-biodiversity wetlands? Too bad to lose these good wetlands that are excellent filters of water. 4.2.3.1.1 Wetlands Delineation and Classification- Page 4-139- What is the Eggers and Reed classification System? Who did the classification? Were there other systems that could have been used? Figure 4.2.3-2- Why was only one wetland surveyed south of the Transportation and Utility Corridor?	WET04, WET07
19772	Wetland Delineation and Classification- Page 4-441- In the final paragraph on this page, wetlands are evaluated by function but do not seem to be evaluated by quality which means that a poor wetlands that shares the same function as a high quality wetland could be exchanged without regard for the quality of the wetland. This makes it possible to substitute any wetlands for another by looking only at the functional qualities. Hydrology, Wetland Vegetation, and Community Types- Page 4-447 Paragraph One- The wetlands proposed for exchange are usual types of wetlands found on the Iron Range and are not equivalent in diversity to the wetlands that would be lost on the Mine Site for the North Met project.	WET14, WET17
19773	Table 4.3.3-4- Lists the wetlands by type for the lands proposed for exchange. I have prepared a comparison table with Types of Wetland being lost compared to those in the exchange. ... The tracts for exchange are much different and not equivalent wetlands. Tract 5 has no wetlands at all. Wetlands Functional Assessment- Page 4-448 Once again the only criteria used for wetland evaluation seems to be that of function. Most of the wetlands for exchange did not have the best Amphibian habitat. Also similarly found on Page 5-298. "Wetland hydrology is a complex mix of precipitation, surface runoff, and, in some cases, groundwater. Despite the use of augmentation to mitigate effects, the response of complex natural systems to human disturbance could only be estimated. Therefore, monitoring of wetlands hydrology and vegetation communities would be the most appropriate way to document the extent and magnitude of wetland responses to the NorthMet Project Proposed Action." Lots of decisions are left to "during the permitting phase". This phase of decision making that does not involve public comment nor will we hear the results that are decided during permitting.	WET14
19774	4.2.2.3.1 Groundwater Resources Geology and Hydrology- Page 4-95- In paragraph 3 the "wetlands between the Tailings Basin and the Embarrass River are assumed to represent surficial expressions of the water table (Barr 2009b) and reflect, at least in part, the increase in groundwater and surface water flow from LTVSMC tailings seepage." It is assumed that these wetland/bogs will be studied to see what solutes from the tailings basin are presently present for a baseline of discharge from the tailings basin. WWTF discharges with sulfate concentration of less than 10 mg/L would be discharged into an existing wetland that flows toward Dunka Road and eventually into the Partridge River. Would this discharge continued over the long term, have a negative effect on the wetland and eventually the Partridge River?	WR079, WR143

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19775	4.3.2.2.7- Tract 5- McFarland Lake Lands There are no wetlands on this tract of land so it cannot be used for wetland credits. At present around 90% of Cook County is under Governmental ownership (State and Federal) which makes for a very small tax base in the County. PILT (Payment in Lieu of Taxes) payments to local governments have been sharply reduced by the Federal Government which has reduced the tax income for Cook County from PI LT. In addition, the County has strenuously resisted land exchanges in the past with the rationale that lands taken out of private hands reduces the tax base. I think this is not the best option for a land exchange given the situation in Cook County. 4.3.3.2.1 Non-Federal Lands- Page 4-440 In paragraph two, there are three criteria set forth for land exchanges related to wetlands. Since Tract 5 at McFarland Lake has no wetlands, it does not meet the criteria as set forth. General Comment: On the pages covering land exchange information for the five Tracts and the Mine Site, information was hard to follow because information was not well separated.	LAN03, LAN06
19776	Page ES-40- Like all mining, this will be a boom and bust proposition which was not fully alluded to in this analysis. There will be the large number of jobs in the beginning and then when the plant and mine are operational, the number will decline to just a few jobs leaving many of the workers unemployed. This has been the pattern for all mining conducted on the "Iron Range". After the boom, the people that choose to remain in the area are then under or unemployed and are then a drag on the economy of the state of Minnesota. Many have also experienced health issues related to exposure to the dust and debris from mining (mesothelioma) for example. This is also a cultural and socioeconomic fact that was not discussed in this SDEIS.	SO04
19777	4.2.10.1.5 Public Service and Facilities Water and Sewer- Page 4-336 Many of the wastewater systems are aging in the area and many of the septic systems are failing which the three counties in the study area are attempting to deal with. Given the bedrock conditions septic systems are expensive to put in and repair. Additional people living in the area will create strain on these systems. 4.2.10.1.4 Housing- Page 4-332 With an influx of mining personnel, there will be an increase in the price of housing and this will present a hardship for many of the low-wage workers that work in tourism or for the government or education. It will retard the development of the area's tourism and influx of retirees who would provide a more long term stable base for the community. 4.2.10.1.3 Public Finance Page 4-332- "The mining and processing of base and precious metals in the state are not currently subject to production tax." Could not believe this when I read it! The taconite industry must be trying to figure out ways to get into the precious metal mining business since they have to pay production taxes. I saw indication among the other taxes listed that there might also be exemption from sales taxes. They are paying taxes on precious little. No wonder it is called precious metal mining. Also please refer to notes on Page ES-40 in this document.	SO04
19778	1.3.1 Applicant's Purpose and Need Statement Page 1-11-It is admirable that PolyMet finds its mission to be the creation of jobs in northern Minnesota so that it can export our minerals to "developing countries like India, China and Brazil". I realize that PolyMet is an international rather than an American company so that maybe their focus is on the world rather than use of these minerals here domestically, however they are a resource that currently belongs, at this point, to the American people through the United States Forest Service. I am not sure that they should be exported to other countries, especially places like China that have not always had a good relationship with the United States. We also need these types of minerals to develop our green industries. Why the preferential treatment for developing nations? How much of a partner is China in PolyMet? How much of the ores have been pre-promised to these developing nations?	SO06
19779	Pages 4-325-4-326- "Mining employment has declined consistently in all three study area counties, from more than 12,000 in 1980 to approximately 3,000 in 2009 in St. Louis County. Mining-related employment is volatile and fluctuates from year to year due to the market price of commodities being extracted. Since mining employment can vary greatly from one year to the next, the decline observed from 1980 and 2009 does not represent a steady reduction in mining-related employment." Mining is not going to provide a stable base of jobs for this area. During later years of mining operation, the numbers of persons employed usually drops to very low levels compared to that at the beginning of mining. It is disingenuous of PolyMet to indicate that one of its prime interests is relieving unemployment in the area.	SO01

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19780	Page 1-11&1-12 D-MN-2 "Ensure that exploring, developing, and producing mineral resources are conducted in an environmentally sound manner so that they may contribute to economic growth and national defense." At present this Land Exchange and the mining would not meet these qualifications. It would appear that at least temporarily jobs would be created but mining is a boom and bust proposition so the economic conditions might be met only for 20 years at most. Sending minerals to China would not be a way to contribute to the national defense because we could not know if they are going to be used for peaceful purposes or to develop missiles or the computers that control them. Paragraph 1.	LAN04
19781	3.2.2.4 Financial Assurance-Page 3-136 This is the most troubling portion of this SDEIS. There is much riding on these financial assurances for the State of Minnesota and its taxpayers as well as our environment. In many places, mining companies have not acted responsibly with the recent examples in just the last several weeks of the pollution of rivers in West Virginia and a 32 million dollar fine against a mining company conglomerate from the EPA for over 6,000 violations of its permits. In the end PolyMet's first priority is to successfully mine and make money for its shareholders. It has spent a lot of time and money in advertising at the High School tournaments and in newspapers to appear to be a concerned and progressive company. The company and this SDEIS accents that this mine will be bringing jobs to a depressed portion of our state. However, this has to be balanced against other factors. Mining is a boom and bust industry. At first there are a lot of jobs but after a few years, the number of jobs declines radically and then there are many fewer positions. After the ore is gone, there is no more work and at some point northern Minnesota will be mined out and left with whatever the mining companies have left in their wake for good or bad both in human and environmental terms. If the water is polluted, it will not be possible for anyone to live or use the land or water. Also of concern is the fact this this mine produces highly reactive waste rock that can easily pollute not only the two rivers dose to it but also the St. Louis River watershed and in the end Lake Superior which is a much vaster resource than one copper mine. Since this will not be like iron mining and the wastes are predicted to remain for hundreds of years, there is a lot riding on approval of this mine and its financial assurances. I know of no investment that has stood the test of 200-500 years. I would like to have such instruments at my disposal for my own use. One can only hope that whomever approves the financial assurance documents, is extremely careful and conservative in making their estimates of how much money will be needed to assure treatment of wastes for up to 500 years. Paragraph 2- Since there are no federal financial assurances to be incorporated into this Permit to Mine, does this mean that this site would not be eligible for Federal Super Fund Cleanup Funds?	FIN01, FIN05, FIN08, FIN10, FIN15
19782	Page ES-11-It appears that the final land reclamation, closure and post-closure maintenance would include water treatment that is not yet proven effective which might mean that higher levels of water treatment might be needed over a very long period of time. Who will be providing the maintenance and monitoring activities over the 200 to 500 year horizon? It is not anticipated that PolyMet will exist for that length of time as mining companies seem to come and go relatively quickly. Does this mean that the State of Minnesota and its tax payers will be on the hook for a long time to come? Also determining costs for the Financial Assurances to the State will be extremely difficult since the costs for cleanup are going to be difficulty to determine. It would appear to need to be a very substantial sum of money. Given that the amount needed for financial assurance and closure should be very high, is it even cost effective to mine this deposit since the company's objective is to make money for its shareholders?	FIN01, FIN05, FIN10, FIN11
19783	Page 3-138 & 3-139- Are these Financial Assurance Instruments subject to failure and if so who Will be responsible for the financial costs of cleanup and monitoring? Does this mean a good chance that the State and its taxpayers are going to be responsible for this? 3.2.2.4.2 Financial Assurance Instruments Page 3-138 "failure or limitations on the ability of third parties to pay reclamation costs." Who are these third parties?	FIN01, FIN10

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19784	1.4.5 Financial Assurance Pages 3-136, 3-137, 3-138 Page 1-17- This is covered most extensively in Chapters 2.6 & 3.2.2.4 and the following portions of the SED IS. Comments on financial Assurance will be made that this point in the comments rather than during comments for Chapter 3. "Minnesota Rules, part 6132.1200, require that before a Permit to Mine can be issued, financial Assurance instruments covering the estimated cost of reclamation, should the mine be required to close for any reason at any time, must be submitted and approved by the MDNR." A paragraph later the following is stated: "The level of engineering design and planning required to calculate detailed financial assurance amounts is typically made available during the permitting process and was not available at the time that this SDEIS was prepared." These two statements appear to be somewhat at odds. Is the financial assurance information done before the permit can be applied for or does it have to be done before the permit can be issued? Who reviews the financial assurance information for adequacy? Since we are talking very long time spans of 200-500 years for remediation of waste water from this mining and ore processing and since the likelihood that PolyMet will not exist in those time frames a lot seems to be at stake for the taxpayers of Minnesota and our future generations. Are a few jobs now worth huge expenses for cleanup, since PolyMet is not likely to exist for long into the future and the financial instruments may also not hold their value over that long a time frame. This may mean the citizens of the state will be on the hook for cleanup and follow through. This is not like the mining that has been permitted in the past since there is much more significant environmental damage that is likely to occur. What happens if PolyMet (not an American Company) declares bankruptcy? Although financial instruments listed for use are supposed to be not dischargeable by bankruptcy, you cannot get blood out of a turnip so to speak and the mining companies have proven adept at shirking their financial responsibilities in the past by using bankruptcy. On page 3-138 the following is stated: "failure or limitations on the ability of third parties to pay reclamation costs" Who are the third Parties? In the SED IS a point is made that there are no Federal assurances needed for this mine. Does this mean that it would not be eligible for Super Funds for cleanup?	FIN01, FIN04, FIN05, FIN08, FIN10, FIN14, FIN15
19785	3.2.2.1.10 Reclamation and Long-term Closure Management- Page 3-59 What is mechanical vs. non-mechanical water treatment? Has non-mechanical water treatment been developed at this point? No explanation is offered. What agency did the modeling for the water treatment discussed in this section? No mention is made of what the conditions would be for the release of PolyMet from water treatment. Since time frames discussed for water treatment are 200-500 years is it reasonable to expect that PolyMet will still be around or even financially able to provide for this water treatment? Isn't it reasonable to assume that someone like the State on Minnesota will have to be committing resources to this? No plant will last the 200-500 year length of time water treatment many be needed. In paragraph four, who is responsible for the monitoring of the water from treatment? Also in that same paragraph, what happens with water treatment? One would have to assume that the Plant described will not function for the 200-500 years described as the period estimated for treatment of the water. What happens when the plant fails? Who rebuilds it? It is unimaginable that PolyMet will exist for that time period. There seem to be no plans in the SDEIS for replacement of water treatment facilities and one has to hope that the financial assurances cover the costs for new water treatment facilities.	FIN01, FIN10
19786	Page ES-17- What monitoring is done for the water that accumulates in the pits? Is it acidic and hazardous to wildlife? Page ES-24- Since the water in the pit lake will need treatment, who will be providing the treatment and who will oversee that equipment stays functioning after the mine is closed? What happens if the treatment equipment needs replacement or if non-mechanical treatment does not become an option? No equipment will function for the 200-500 year time horizons given as the length of time treatment will be needed. If the pit water is not treated properly does this pit lake become a hazard to wildlife that may land on or use the lake for nesting? Figure 3.2-29 Will water in tailings basin be toxic to any water birds or wildlife that might get into it? Hydrometallurgical Residue Facility Reclamation- Page 3-130 Is any ponded water safe for wildlife such as waterfowl?	WI04
19787	Page 4-122- Embarrass River Water Quality-Spring Mine Creek is not visualized on any maps in this section of the SDEIS. Paragraph 2-"Spring Mine Creek was listed by the MPCA as impaired for invertebrates and fish while the Embarrass River Watershed from the headwaters to Embarrass Lake was listed as impaired for fish." Are we to expect that the pollution that has resulted in these impaired waters will increase with the use of the tailings basin for the NorthMet mine?	WR060

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19788	Page 4-133 Lower Embarrass River-It appears from the third paragraph that the conclusion of this SDEIS is that the fish are all ready so contaminated that it will be all right to mine because the mercury in the fish is at mercury concentrations that are too high to remediate. Studies are suggested but have not been done. Why? Because it is a lost cause? The reference to these waters in the center of the paragraph is not clear as to which waters are being referred to. How were the conclusions regarding the mercury concentration in seepage determined? Is this water going to be treated so that mercury levels are lowered? Is the idea that there is already mercury in the fish so the company should not have to worry about possibly adding any mercury? As written, this is difficult to understand.	AQ11
19789	Page 4-29 Table 4.2.2-2- Footnote to this Table indicates that Colby Lake is on the final 2012 TMDL List. With the possibility of mining wastes being added to Colby Lake and White Water Reservoir, will more mercury treatments need to be added for drinking water or fish. I know that the SDEIS indicates that mercury will not be added but is there going to be monitoring to assure that this does not occur?	MERC22
19790	3.2.2.2.4 Use During Operations- Page 3-83 It is anticipated that there will be quite a bit of dust generated over the years of operation of the Mine and the transportation of the ore in open railroad cars. What happens to the water and vegetation in the area of drift from the railroad line? Will this be monitored and if this is a problem would some other type of railcar be used? What remediation is planned for this drift and the environmental damage?	AIR04
19791	4.2.4.2.2 Invasive Non-native Plants- Page 4-174- It is noted in this section that non-native plants and seed mixtures exist and have been used in the past as cover for mining pits and reclamation sites. It is hoped that during reclamation, an effort will be made to use mixes of seed that do not have non-native seed that will continue the former patterns of reclamation. 4.2.4.2.3 Threatened and Endangered Plant Species Page 4-176- What happens to the two state endangered, two state threatened and seven state species of special concern that have been identified on the Mine Site? 4.2.4.2.1 Cover Types- Page 4-183- Regional Foresters Sensitive Species-The Biological Evaluation is referred to in the first paragraph of this section however it is not available and it is not known what is in it which which does not aid in evaluation of the SDEIS.	VEG01, VEG05
19792	Page 4-173-Minnesota Biological Survey- Paragraph One- "The entire 3014.5-acre Mine Site has been characterized by the MBS as various Sites of High Biodiversity Significance due to the presence of the One Hundred Mile Swamp site, which covers 15 percent of the Mine Site, and the Upper Partridge River site, which is 85 percent of the Mine Site (MDNR 2008a)." In Paragraph 2 it is further specified 1/Two native plant communities, black spruce-jack pine woodlands (Fdn32c; 34 percent of Mine Site) and rich black spruce swamp {FPn62a; 7 percent of Mine Site), have been characterized by the MBS as "imperiled/vulnerable" and "vulnerable" respectively MDNR 2008b)." This means that the mine site covers wetlands of which 41% are of high ecological value. This is a pretty large loss. See also Paragraph Two on Page 4-174 under National Hierarchical Framework of Ecological Units.	VEG02
19793	Page ES-41- In Paragraph 6 the following is noted" Air emissions can travel many miles before they are no longer detectable." Does this mean that persons in the surrounding areas are going to be under the threat of particles that can cause respiratory diseases such as mesothelioma? Page ES-41- In this section the point is made that the air pollution is below state and federal risk guidelines. Unhappily, iron mining has created an epidemic of persons with mesothelioma in the area that is currently being studied by the University of Minnesota. I have seen no indications in this document of what will be done to prevent similar respiratory difficulties for the miners doing this new type of mining and the public from drift of particulates. Paragraph 1.	AIR03

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19794	4.2.2.1.3 Wild Rice Page 4-33- Presence of Wild Rice within the North Met Project Area- The "MPCA has reached a draft staff recommendation regarding waters used for the production of wild rice." The waters From the draft statement are listed but not the conclusions from the recommendations. Page 4-93 & 4-94- Paragraph 2- "Concentrations of sulfate are of special concern because the MPCA staff has recommended that this entire reach of the river from the outlet of Colby Lake to its confluence with the St. louis River is a water used for the production of wild rice (MPCA 2012b). Based on the 2008-2009 data, sulfate concentration in the Lower Partridge River averages about 162 mg/l. For the North Met Project Proposed Action, sulfate concentrations in receiving water has been identified as an issue for consideration in the EIS." This paragraph speaks for itself.	WR158, WR162
19795	4.2.14.2.5 Geotechnical Summary- Page 4-376 In concert with the comments above the following is noted in this section. "The existing northern dam in Cell 2E has been identified as a potential area of weakness as it is underlain a layer fibrous peat up to approximately 10ft. thick that extends north beyond the toe of the dam into a nearby wetland and due to the presence of some contractive fine tailings and slimes."	GT01
19796	Page 4-43-Geology of the Mine Site- "underlying the Virginia Formation is the Biwabik Iron Formation, which is the source of taconite iron ore and is an important water source for residential and community wells in the region. The mine pits would retain about a 130-ft separation between the final pit and the Biwabik Formation based on current drilling and interpolation of geology between drill holes." How will the drillers and blasters know how much separation is being kept between the two formations. Since the Biwabik Formation is quite permeable, with groundwater and precipitation, what are the chances of leakage into the Formation from the mining pit with its reactive wastes resulting in contamination of the ground waters?	WR007
19797	*Page ES-47- It is understood that two of the Co-lead Agencies have no requirement to have a preferred alternative. Without a preferred alternative, it makes it difficult for the public to understand where these agencies (with their expertise) stand in relationship to this SEDEIS and since they should be representing public interests, it would be valuable the public to know if they do have a preferred alternative or what their concerns might be. Paragraph 3.	ALT20
19799	3.2.2.1.7- Waste Rock categorization and Management- Page 3-46 In the first paragraph the "East Central Pit would be flooded ( using groundwater, in-pit runoff," etc. Where will this groundwater be obtained and what will the effects be on the aquifer that it Is taken from? Will this do damage to the remaining wetlands or to the flows of the Embarrass and Partridge Rivers? 3.2.2.1.8 Engineered Water Controls- Page 3-46 What and where is this non-contact stormwater coming from? More importantly, where is it being direct to? This is also a question that is not answered on Page 3-64 in the Section on East Pit and Central Pit. Water Management- Page 3-72 Paragraph One- Why is effluent from the WWTF now sent to the combined East Central and West Central pit when formerly it was sent to an off-site landfill? Also in paragraph one is The following: "The objective of treating the West Pit water would be to manage water quality within the pit prior to groundwater outflow from the pit lake via the surficial aquifer" Why is this water that needs treatment being allowed to get into the surficial aquifer?	PD03, PD04, PD35
19800	1.4.2.1 Overview Page 1-13- "By rule, the MDNR is the designated RGU for the NorthMet Project." This has never made any sense that the MDNR should have the final decision over property that is currently owned and managed by the United State Forest Service for the benefit of ali the citizens of the United States of America. I do not understand how a local branch of government can tell the Federal government what will happen on property that it has no interest in or jurisdiction over. Makes no sense what so ever despite what the MEQB (another local unit of government) says. Shouldn't the USFS be the determining agency since the land exchange has not occurred? Paragraph 3. Reclamation Planning- Page 3-63 What agency receives the annual Contingency Reclamation Plan specified in Minnesota Rules?	PER45

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19801	Table 3.2-12- How toxic are the material stored in the Reagent Building? What plans are there for cleanup of spills? (Think West Virginia storage tank leakage and water contamination). 3.2.2.3.6 Hydrometallurgical Process- Page 3-112 & 3-113 Table 3.2-13- How toxic are these materials? I see they need secondary containment. Is there a team trained to deal with spills or leakage? We have to hope that we do not have a situation like the contamination in West Virginia with tank leakage into surrounding rivers.	HAZ01
19802	4.2.14.2.1 Location and Description Overview- Page 4-368 Failure of the tailings basin with a height of 200 feet would release a lot of tailings. Since the new tailings are at the top, they would be sure to inundate the surrounding area. 4.2.14.2.2 Development of the Existing LTVSMC Tailings Basin Page 4-371 What is a long ton? What is a short ton? The Tailings Basin seems unsound in areas. Page 4-372- 11In 1995 and 1996, approximately 1,500 cubic yards of spoil material dredged from Taconite Harbor in Lake Superior was placed in the south-eastern portion of CellIE." I think this Is the material that entered Taconite Harbor when the Tailings Basin at Lax Lake collapsed sending tailings over a large distance eventually entering Lake Superior at Taconite Harbor. As can be seen, Tailings Basins can collapse.	PD10, PD11
19803	4.2.1.4.2 Legacy Contamination- Page 4-10 & 4-11 "Additionally the LTVSMC Tailings Basin seeps are being managed under the Cliffs Erie Consent Order using short-term measures until long-term mitigation measures are determined." What happens to the AOCs when PolyMet takes over? These seeps were not mentioned in the information on the tailings basin in Chapter 3. When are long-term mitigation measures determined? Page 4-17-Is Cliffs Erie continuing to "land farm" petroleum-contaminated soils at this time? This also was not mentioned about the tailings basin in Chapter 3. What is likely to happen when the mining wastes are added on top ofthese "land-farmed" materials. Is this something that PolyMet will continue?	HAZ05
19804	3.2.2.4.1 Cost Coverage and Estimation- Page 3-137 Off-site disposal of pore water from Hydrometallurgical Residue Facility- Who does this disposal and where is it disposed of? How is the water transported? 3.2.2.3.7 Hydrometallurgical Residue Management- Page 3-115 How stable is the existing LTVSMC Emergency basin that will be used for these wastes? 3.2.2.3.2 Existing Facilities- Page 3-87 The tailings basin is of an old design. I assume it is similar to the tailings basin at Lax Lake that failed sending tailings downhill for many miles. This area still looks like a moonscape and efforts to reclaim the area have been pretty unsuccessful. Plants do not grow well. Same concerns for the Tailings Management on page 3-102. What plans are in place should this basin fail? Same comments and concerns for Tailings Basin page 3-116 & 3-117. See also comments later in this document for page 4-126.	PD10, PD11, PD18

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19805	Product and Product Tank Disposal-Page 3-128 Who is responsible for the monitoring the tanks for leakage or maintenance? The reagent suppliers or PolyMet? Tailings Basin Reclamation- Pages 3-128 & 3-129 Last paragraph page 3-129, what is periodic inspection? As I have reviewed the rest of the SED IS, it is apparent that the Executive Summary does not highlight many of the problems and important facts that are presented in the rest of the document. It appears to be an overly optimistic and very simplified view of the document and many of the problematic areas are not addressed in the Executive Summary at all. Page ES-10- The tailings basin from the former mining is proposed for use. Has this tailings' basin been studied to determine if it is stable enough to receive more tailings? We have had tailings basins collapse (the basin at Lax Lake) which resulted in massive restoration needs and environmental degradation. Both the Embarrass and Partridge Rivers and their watersheds are close to the tailings basin as noted from later in this SDEIS. Page ES-23- When waste rock is in the Category 2/3 and 4 stockpiles, how is reactivity of the rock controlled since it is exposed to air and water? Paragraph 2. What are stockpile liners made from and are they degraded by the sulfuric acidic runoff from the waste rock? Paragraph 3 In the Executive Summary there are no Figures that show location of the Category 4 stockpile and its proximity to water control system. They appear later in the document but no references are given so it is difficult to understand what is being described. Page ES-23- During operations, the top of the tailings basin is open which allow reactivity of wastes with air and water. Sides of tailings basin is addressed. Again see comments on page ES-10. Paragraph 3 in this document. Page ES-23- In this paragraph it sounds as if the waste rock will be placed immediately into the East Pit however, later in the SDEIS it indicates that waste rock will be stored in piles outside of the pit. Monitoring, Adaptive Management, and Mitigation Pages ES 24-25- How will a flotation tailing basin pond bottom cover system be installed during reclamation? This sounds like it is below water in the tailings basin but how will that prevent oxygen getting to the tailings if it is in the bottom?	PD07, PD10, PD15
19806	Figure 10- Poor labeling of structures on the map make it difficult to evaluate the proposal where this figure is referenced. Missing are the Embarrass River and Colby Lake. Although these structures are identified in later figures, it is difficult to search through the whole SEDEIS to find Figures that show what is being referenced in the proposal at this point. Page ES-40- It is interesting to note that the figure for wages and rents that is estimated for the economy (\$231 million) is not a whole lot below the figure of \$332 million that is estimated for the value of the extracted minerals. Apparently this is enough of a profit for Poly Met to feel that is willing to take on the mining of these minerals. There is nothing to indicate where these figures were obtained and whether the cost of closing the mine and ongoing remediation of the wastes was factored into these figures. Paragraph 5.	PD38, SO04
19807	Category 1 Stockpile Water Containment System and Cover- Pages 3-46 & 3-47 In the last few years, there have been 100 year rain events with rainfalls of over 1" per hour lasting a number of hours. Will this system and its pumping capabilities be capable of handling an event of this magnitude? What if the power fails to the pumping or water treatment facilities? Category 2/3 and 4 Stockpiles and Ore Surge Pile Liners-Page 3-51 It is noted that Category 2/3 and 4 piles are treated exactly the same as one another. Why is this when Category 4 wastes are going to be so much more reactive and produce so much more sulfuric acid? Has this 80-mil LLDPE geomembrane been tested against sulfuric acid? What is the overliner drainage layer composed of? Has it been tested against sulfuric acid runoff? Wastewater Treatment Facility- Page 3-52 Does this Central Pumping Station have power backup in case of power failure from the grid? What happens when the power goes down? What agency does the water quality monitoring and oversees the wastewater treatment?	PD15, PD16
19808	3.1.1.5-Plant Site Layout Overview-Page 3-3 and 3-4 No figures are given that show the location of all the structures at the plant site until later in the chapter. This makes it difficult to visualize both the mine and plant sites and the relationship of structures and make pertinent comments. No mention is made as to whether the tailings basin has been studied for stability. A number of years ago the tailings basin at Lax Lake collapsed spilling tailings across many miles and eventually spilling across Highway 61 and into Lake Superior. Environmentally that area has had very poor recovery. Since this tailings basin is older than the one at the former Lax Lake, structural stability might prove of the essence since these wastes are considerably more toxic than taconite tailings.	PD07, PD11

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19809	3.2.2.1.9 Water Management- Page 3-52 &3-53 "Sludge waste would be disposed of off-site in a solid waste landfill until the Hydrometallurgical Plant became operational." Where is this landfill? Is it properly devised to handle such sludge until it is returned to the Hydrometallurgical Plant for processing. Shouldn't this be considered a hazardous waste and is there such a landfill in the area? Reference is made to the Hydrometallurgical Plant in Section 3.2.2.3, however in reviewing that section no mention is made of when that plant might be constructed. This means that sludge could be hauled for an uncertain length of time and no indication is given of when the sludge would be returned to the plant for processing. Again the tailings basin is discussed but actual location has yet to be shown.	PD17, PD19
19810	West Pit- Page 3-65 "Reject concentrate from the WWTF RO would be evaporated and the residual solids disposed of off-site." Is this the same off-site facility referenced in section 3.2.2.1.9? This is not the section referred to previously, but is it the same facility? See comments for page 3-53 this document. Category 1 Stockpile- Pages 3-65 & 3-66 Is the process for covering stockpile 1 a new process or is it a proven technique? Who will do maintenance for removal of brush and trees and for how long will that be needed? 200-500 years? In paragraph two, once again there is talk of converting the RO reject concentrate to residual solids, which would be disposed of at appropriate off-site facilities. Again, are is this the same Facility referred to in Section 3.2.2.1.9? Post Closure Activities-Page 3-79 Paragraph one- Who will do the repair and maintenance of the Cover system for Stockpile 1? What are the non-mechanical water treatment systems? Have they been developed to deal with such large amounts of wastes?	PD03, PD06, PD16
19811	3.2.2.2.3 New Construction and Pre-production Development- Page 3-83 In construction of the new water pipeline of 7.5 miles in length, is special piping being used that can withstand the sulfuric water being carried in the line?	PD36
19812	5.2.2 Water Resources- Page 5-5 Summary: "While reusing the existing LTVSMC Tailings Basin offers environmental benefits (e.g., reducing wetlands effects, addressing legacy water quality issues), it does create some challenges because the existing LTVSMC Tailings Basin is not lined and currently releases seepage with elevated concentrations of sulfate, TDS, and hardness, among other constituents. Many of the engineering controls proposed by PolyMet at the Plant Site are related to managing seepage from both the existing LTVSMC tailings and the additional NorthMet tailings. The North Met Project Proposed Action would have the potential to affect groundwater and surface water hydrology and quality in both the Partridge River and Embarrass River watersheds. These two rivers are both tributaries to the St. Louis River and within the Lake Superior Basin." These statements from the SDEIS appear to present a somewhat different picture than the information presented in the rest of the SDEIS. There are many other comments that could be made at this point but much of them would repeat those provided previously in this document. It is distressing to see how many features would not have their effectiveness known until the actual construction of the features such as tailings basin bottom cover and the possibility of damages to these liners. Non-mechanical water treatment is another such item where the final ability for this process to is not known. Much seems to be left to chance and we will figure it out as we go along kind of planning. This would appear to be an invitation for disaster.	WR127, WR137
19813	3.2.2.3.11 Water Management- Page 3-123 What about heavy rain events falling into the Tailings Basin? We have had some 1-2" per hour rain events in the last several years. How will this be handled?	WR057, WR077, WR176
19814	4.2.2.1.2 Water Resource Use Classifications Page 4-23 Groundwater- Mining does not appear in the list of 6 priority allocation of waters determined by the commissioner and would appear to be a low priority for allocation of water. It is not explained who the commissioner is or what organization the commissioner is with. Page 4-24 Surface Water- I would be worried if I lived in the City of Hoyt Lakes because of possible impairment of my drinking water. With so much water taken from Colby Lakes and with discharges into the streams feeding Colby Lake and the White Water Reservoir drinking water could be placed at high risk.	WR043, WR200

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19815	4.2.2.2.1 Groundwater Resources Page 4-45- Paragraph 1-Presence or lack of presence of fractures in the bedrock seems to be just speculation at this time. If fractures are found, what will be done? Would there be reassessment of the seepage of contaminated waters into other Formations and aquifers? 4.2.2.2.2 Surface Water Page 4-61- Upper Partridge River Hydrology- "Seeps from the southern portion of the existing LTVSMC Tailings Basin (south side of Cell E) naturally flow to Second Creek, a tributary of the Partridge River in the Lower Partridge Watershed (see Figure 4.2.2-1); however, they are presently being captured and pumped back to the Tailings Basin und the Consent Decree between the MPCA and Cliffs Erie." What happens when PolyMet takes over? Page 4-86-Colby Lake Water Quality- A TMDL study of Colby Lake is needed but has not been done yet. Is it even worth doing the study since the mine wastes and discharges may change or make the mercury levels even higher and even more difficult to remediate? Page 4-90-Lower Partridge River Water Quality- In the 4th Paragraph, seepages from Pit 9 have high sulfate concentrations. What is being done to improve this situation? We hope this is not a sign of what will happen after closure of the North Met mine project. Page 4-90- 5th Paragraph- It is a shame that MPCA will not be evaluating water quality standards until the NPDES/SDS permitting process so those results are not available.	WR087, WR118, WR125
19816	4.2.2.3.1 Groundwater Resources Page 4-95-In Paragraph 5 the heights of the tailings basin cells are given. One cell is currently topped and closed at 200 feet. It is assumed that the other cells might be filled to a similar height during the North Met project. Again, the stability of the tailings basin is questioned for filling to such heights and the possibility of collapse has not been studied in this SDEIS at any point.	GT02, GT15
19817	General Comments: Chapter 5 has a number of issues that made it difficult for a layperson to make comments on information in this Chapter which include but are not limited to: Much of the information in Chapter 5 depends upon the use of models with which a layperson has no familiarity. Therefore the ability to judge whether the models being used for decision making are competent has to fall to the experts and there is no discussion of those models by experts in the SDEIS. Despite the use of many models, a lot of this work appears to be "educated guesswork" that will have to be field monitored and checked for accuracy at the time the mine is operating and that is pretty late to make changes. An example of this is found on page 5-213. "water management can be answered using the current construct of GoldSim (i.e. transport time for constituent load in Category 1 stockpile). Certain assumptions were made that may not be applicable to all potential project feature modifications."	NEPA07, WR189, WR201
19818	Page ES-17- What is the Category 1 Stockpile groundwater containment system listed in the first paragraph? Use of the LTVSMC tailings basin is worrisome. See comments from page ES-10. Who monitors contaminants in water seepage levels from the Tailings Basin? Paragraph 4. North Met Project Effects of Water Resources Page ES-35 and ES-36 Who conducted all the water tests listed in Paragraph 2? Aluminum-None of the structures (Tailings Basin, Embarrass River or Colby Lake) are labeled on maps in this section making it difficult to know where the structures are located. Page ES-36- Although water from Colby Lake will be used and it is higher in Aluminum, it does not mean that all the increases in Aluminum will be from water from Colby Lake and there might be some contribution from the North Met project as well. Pretty broad statement that might not supported when the process water is analyzed and found to have more aluminum than the Colby Lake water. Why is Colby Lake water high in aluminum in the beginning. Is this a legacy from iron mining? Paragraph 1 Seepage from Tailings Basin sounds like a lot of water despite the percentage it is quoted as being. Paragraph 4.	WR017, WR082, WR090

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<b>Sender Name (Submission ID)</b>	Becky Milanese (54766)	
19819	Page ES-39 What if the current drought continues and water levels in the Embarrass and Partridge continue to drop? Where will water for the mine be taken from? Paragraph 1 Page ES-39 Who did the water quality measuring? See also comments from page ES-36 Paragraph 2 in this document. Watershed Restoration- Page 3-71 In the 6th paragraph who will monitor the discharges and the runoff to the Partridge River? Beneficiation Process Water 810 gallons (gpm) is a LOT of water to draw from anywhere. How often will this be needed? No lengths of time for such draws were given. Who does the monitoring and reporting on groundwater and surface water quality? Page 4-111- Baseline Groundwater Quality within the Tailings Basin Pond and at Toe of the Tailings Basin- Paragraph 3- What or who is the NTS? This abbreviation is not listed in the Abbreviations or Glossary. Page 4-122- Paragraph 5- Will the only monitoring of the Embarrass River water quality be at PM-13? Who is responsible for collecting those figures and which agency will review these figures? Page 4-126- Embarrass River Tributary Streams- "The existing LTVSMC Tailings Basin, proposed for reuse by PolyMet, was operated from 1953 until it was shut down in January of 2001. The Tailings Basin is unlined and the perimeter embankments do not have a clay core or cutoff, which allows for both surface seepage through the embankment and groundwater seepage under the embankment." This is troubling. How easy are the proposed modifications to do to the Tailings Basin? From Figure 3.2-28, it appears that the Tailings Basin will only have a rock buttress on the toe of the pile with a cutoff wall with a shallow drainage collection system. What is the cutoff wall composed of and is it impermeable? Page 4-127- "For the parameters monitored, data show compliance with water quality standards except for exceedances of hardness and pH near the toe of the of the embankment; exceedances of aluminum, boron, cobalt, copper and lead at PM-10; and exceedances for mercury at all locations." Are we to expect that these exceedances will increase with the new tailings being added to the Tailings Basin the North Met tailings?	WR056, WR070, WR093, WR139, WR188
20069	GLOSSARY Page lx- geosynthetic membrane cover- what is this made of and would we expect decomposition over time from natural forces or the sulphuric wastes?	EDIT01
20070	IMPLAN- How accurate is this model? Who or which agency uses this modeling?	EDIT01
20071	MODFLOW- How accurate is this and who uses it?	EDIT01
20072	National Pollutant Discharge Elimination System {NPDES} Permits- No agency is listed as responsible for issuance of these permits and setting their limits and requirements.	EDIT01
20073	Page lx-GoldSim- what is a engineered systems model? Which analysis gets used in which place and who uses these models?	EDIT01
20074	Page lxi- Humidity cell- Who or which agency uses this test? Hydrometallurgical residue- what is an amorphous form?	EDIT01
20075	Page lxiii- Monte Carlo Simulation- Who or what agency uses this simulation and determines its use and outcome?	EDIT01
20076	Page lxiv- Paste or thickened tailings- what is a homogeneous nonsegregated mass?	EDIT01
20077	Page lxix- Wastewater treatment facility (WWTF) & Wastewater Treatment Plant (WWTP) - What is the difference between these two and who permits and oversees their discharges?	EDIT01
20078	Page lxxv- Permeable reactive barrier- Huh? Who installs and maintains this barrier? Is it a separate facility?	EDIT01
20079	Page lxvi- Reject concentrate- What happens to this water or brine?	EDIT01

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<b>Sender Name (Submission ID)</b> Becky Milanese (54766)		
20080	Page lxvi-lxvii- Spill Prevention Control and Countermeasure (SPCC) Plan- Who produces, writes, revises and oversees this plan.	EDIT01
20081	Pumping Test- Who uses these tests and determines the results and effects that need to be considered?	EDIT01
20082	Reclamation- Who oversees this and decides that it is done in a proper manner?	EDIT01
20083	XP-SWMM- Which agency uses this modeling software and what is it used to determine.	EDIT01
<b>Sender Name (Submission ID)</b> Becky Richardson (54826)		
18535	I believe that the environmental impact is potentially too damaging to warrant 350 jobs for 20 years.	SO01
<b>Sender Name (Submission ID)</b> Becky Zientek (45149)		
8403	I am opposed to nickel/copper sulfite mining in Northeastern MN because my understanding is that it has never been done before without polluting the water where these mines are located.	WR195
8407	I am all for good paying jobs, but it is just too risky and not worth the harm I believe these mines will very likely cause.	SO01
8409	Clean air and water are priceless resources that belong to millions of Minnesotans and should not be risked for a hundred or even thousand jobs.	AIR11
15427	Time and again you read about environmental disasters and the companies that cause them who fight tooth and nail not to pay what they should for a proper cleanup or declare bankruptcy and leave taxpayers with a large cleanup bill along with the wrecked environment.	FIN01
15478	I am opposed to nickel/copper sulfite mining in Northeastern MN because my understanding is that it has never been done before without polluting the water where these mines are located.	PD26
15479	I am all for good paying jobs, but it is just too risky and not worth the harm I believe these mines will very likely cause.	SO01
15481	Time and again you read about environmental disasters and the companies that cause them who fight tooth and nail not to pay what they should for a proper cleanup or declare bankruptcy and leave taxpayers with a large cleanup bill along with the wrecked environment.	FIN01
<b>Sender Name (Submission ID)</b> Ben Christiansen (39799)		
7142	An impact study would be the very least you could do for the public.	HU01
<b>Sender Name (Submission ID)</b> Ben Isbell (52493)		
17035	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
<b>Sender Name (Submission ID)</b> Ben Niessen (41187)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ben Niessen (41187)		
9218	Please reject the PolyMet NorthMet SDEIS as inadequate ...Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion.	WR003
9222	Reject..SDEIS...and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever. The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on..streams.	WR003, WR004, WR115
9234	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands.....Both the mine site and tailings site have high pollution levels in surficial groundwater seeps and have wetlands far closer to pollution sources than the "evaluation locations" used in the SDEIS.	WR003, WR091, WR165
9236	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world....	WR018
9237	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet's own reports for the Canada stock exchange reveal significant faults and fractures.	GT01
<b>Sender Name (Submission ID)</b> Ben Senauer (58058)		
19862	Claiming environmental safeguards can prevent pollution from this mining is a JOKE!	PD01
<b>Sender Name (Submission ID)</b> Ben Wagner (45344)		
12796	How can a responsible plan, which supposedly(?) aims to protect and preserve the future interests of the state, as well as the common citizen and local resident, allow for a plan with abstractions such as "500 years" of ongoing water treatment?	WR035
12798	What happens when(not if) the mine pollutes surrounding waters, and let's say anecdotally, the mining company is dissolved and/or goes bankrupt? Who will pay for further maintenance of the polluted waste site?	FIN01
15619	You also need to HONESTLY address issues of habitat destruction and impacts of stress on local inhabitants (MOOSE anyone?), regional human health impacts of mining, effects on local infrastructure, noise pollution in surrounding wilderness areas, HONEST information on local job creation associated with mining, and most importantly, HONORING THE EARTH.	WI01, WI02, WI05
15620	I happen to have a deep connection with Loons, and am very concerned about your plan to seriously impact a favored area of one of the most enchanted, magical creatures of this landscape.	WI01
<b>Sender Name (Submission ID)</b> Ben Wolfe (11645)		
2344	the PolyMet Mining site in northern Minnesota, for example, will require water treatment for up to 500 years. How do we calculate such financial risk 500 years into the future? How do we account for changes brought on by technology, the environment or the economy over such a long period of time?	PD29, WR189

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<b>Sender Name (Submission ID)</b>	Ben Wolfe (11645)	
2344	the PolyMet Mining site in northern Minnesota, for example, will require water treatment for up to 500 years. How do we calculate such financial risk 500 years into the future? How do we account for changes brought on by technology, the environment or the economy over such a long period of time?	FIN01, FIN05
2345	How will local governments and the local economy be financially impacted? Will other local economies suffer a negative financial impact? Will it impact other stakeholders such as hunters and anglers and wild rice gatherers?	FIN08
2345	How will local governments and the local economy be financially impacted? Will other local economies suffer a negative financial impact? Will it impact other stakeholders such as hunters and anglers and wild rice gatherers?	FIN08
2346	PolyMet’s water Modeling Data Package” graphs indicate that water quality would remain poor, meaning that water treatment could be perpetual. This runs counter to Minnesota laws, which calls for mining sires to be maintenance-free after closure.	WR037, WR038
2346	PolyMet’s water Modeling Data Package” graphs indicate that water quality would remain poor, meaning that water treatment could be perpetual. This runs counter to Minnesota laws, which calls for mining sires to be maintenance-free after closure.	WI04, WR071, VEG04, WR156
2347	Substantial amounts of polluted seepage could enter our groundwater untreated.	WR070
2347	Substantial amounts of polluted seepage could enter our groundwater untreated.	WR070
2348	more than 900 acres of high-quality wetlands could be permanently destroyed with thousands of additional acres of wetlands indirectly affected	WET24
2348	more than 900 acres of high-quality wetlands could be permanently destroyed with thousands of additional acres of wetlands indirectly affected	WET24
2349	more than 4,000 acres of wildlife habitat could be degraded, including more than two square miles of critical habitat for the endangered Canada lynx and important habitat for Minnesota’s declining moose population	WI01, WI02
2349	more than 4,000 acres of wildlife habitat could be degraded, including more than two square miles of critical habitat for the endangered Canada lynx and important habitat for Minnesota’s declining moose population	HU01, WR195
2350	the proposed mine site is located on the Superior National Forest, where an open-pit mine is not allowed. But instead of rejecting the proposed mine, the U.S. Forest Service is proposing a land exchange with PolyMet to eliminate this surface protection.	LAN02
2350	the proposed mine site is located on the Superior National Forest, where an open-pit mine is not allowed. But instead of rejecting the proposed mine, the U.S. Forest Service is proposing a land exchange with PolyMet to eliminate this surface protection.	LAN02
2351	PolyMet is just the first of several copper-mine proposals for Northeastern Minnesota, with widespread exploration occurring in both the Lake Superior and Boundary Waters watersheds. Much of the Lake Superior watershed already exceeds standards for mercury and other pollutants. And the Environmental Protection Agency has identified heavy-metals mining as the nation’s top toxic-producing industry	CU04
2351	PolyMet is just the first of several copper-mine proposals for Northeastern Minnesota, with widespread exploration occurring in both the Lake Superior and Boundary Waters watersheds. Much of the Lake Superior watershed already exceeds standards for mercury and other pollutants. And the Environmental Protection Agency has identified heavy-metals mining as the nation’s top toxic-producing industry	CU04

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<b>Sender Name (Submission ID)</b>	Ben Wolfe (11645)	
2352	Before the first sulfide copper mine is approved in the state, the agencies should take a step back and prepare a region-wide risk assessment to assess the extent of existing pollution and determine what a new sulfide mine district would mean for this regions world-renowned waters.	CU18
2352	Before the first sulfide copper mine is approved in the state, the agencies should take a step back and prepare a region-wide risk assessment to assess the extent of existing pollution and determine what a new sulfide mine district would mean for this regions world-renowned waters.	CU18
2353	Glencore is a multibillion-dollar Swiss corporation chaired by former BP CEO Tony Hayward, whose environmental record is infamous around the world. The corporation stands to profit id PolyMet is permitted; shouldn't it also be responsible for the cost of cleaning up the mess left behind if things go wrong?	FIN02, FIN04
2353	Glencore is a multibillion-dollar Swiss corporation chaired by former BP CEO Tony Hayward, whose environmental record is infamous around the world. The corporation stands to profit id PolyMet is permitted; shouldn't it also be responsible for the cost of cleaning up the mess left behind if things go wrong?	LAN02, LAN04
8565	I love Minnesota, its people, its land, and most certainly its water...Can you spell HUNDREDS OF YEARS regarding the financial aspects, let alone the destruction of one of Minnesota's greatest assets, its water?	FIN05
8565	I love Minnesota, its people, its land, and most certainly its water...Can you spell HUNDREDS OF YEARS regarding the financial aspects, let alone the destruction of one of Minnesota's greatest assets, its water?	FIN05
8566	Who is really going to pay for the PolyMet mess? You know PolyMet does not, nor will not have that type of money to pay for its errors, and in the long run the "price", beyond the destruction of the environment for a few years of jobs and taxes, will not be just the State of Minnesota taxpayers, but ...all the taxpayers in the United States.	FIN01, FIN10
8566	Who is really going to pay for the PolyMet mess? You know PolyMet does not, nor will not have that type of money to pay for its errors, and in the long run the "price", beyond the destruction of the environment for a few years of jobs and taxes, will not be just the State of Minnesota taxpayers, but ...all the taxpayers in the United States.	SO06, WR195
<b>Sender Name (Submission ID)</b>	Benjamin A. Sullivan (43004)	
11509	There are also different Native American lands, which would be disturbed in this process of opening up the land for mining.	CR01
15286	The area is home to many vital wet lands (sic) which this project would destroy indefinitely roughly 900 acres of this pristine wildlife habitat. My greatest upset with this project is the large scale of the affected area...Six miles is too much wetland lost when wetlands are already under serious concern here in the United States.	WET24
15287	Not only will this project destroy valuable wetland the surrounding vegetation will also be harmed in this process, whether destruction by physical removal or harmed by the pollution that will be caused from the mine.	VEG06
15288	Poly Mets open mine will be pumping acidic water and toxic metals into the waterways, which eventually lead into Lake Superior. The project should be terminated because these toxic metals are very harmful to the environment, and could have affects not yet looked at by scientists.	WR001, WR111
15289	Mining the sulfide mineral would increase the amount of mercury in the water which would subsequently get into the fish, and eventually into the human population. The surrounding area already has a high mercury level, and this open pit mining would just worsen the problem.	HU03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Benjamin A. Sullivan (43004)		
15290	The proposed surface mining of Poly Met will have many harmful effects on the natural state of the environment and disrupt the enjoyment of the many people that come to visit these sacred natural areas.	LU06
15291	With sulfide mining the waste when exposed to air and water will chemically formulate sulfuric acid. This acid will leech toxic metals from the waste rock into the sweet natural waters of Lake Superiors headwaters.	WR001, WR111
15292	The project would jeopardize the Boundary Water Canoe Area Wilderness, which is a destination for many canoe enthusiasts.	WILD02
<b>Sender Name (Submission ID)</b> Benjamin B. Eide (42450)		
6788	Our lake and waterways are what help make Minnesota a great place to live.Lake Superior is not only a state or national treasure but a ONE OF A KIND treasure that is vital to our state. Please don't risk polluting it for a few jobs and a few dollars.	WR111
<b>Sender Name (Submission ID)</b> Benjamin Cook (51560)		
3615	There is no guarantee that any company will be around long enough to sufficiently correct all of the damage done, no matter what these companies promise in the beginning.	FIN01
3616	The companies that own the mines will reap the profits and then leave, forcing the citizens of Minnesota to deal with the damage to the health of humans as well as wildlife.	WI04
3617	However, there is a guarantee that damage will be done to the natural environment, especially the irreplaceable Boundary Waters Canoe Area Wilderness. Destroying the beauty and health of the state of Minnesota is not worth creating a few hundred temporary jobs.	WILD02
<b>Sender Name (Submission ID)</b> Benjamin H Johnson (43031)		
12505	The water treatment plans contemplated in the draft EIS assume that the region will for centuries be part of an organized, advanced industrial civilization that produces abundant electricity, and educated populace with advanced technical skills, and a legal and institutional framework that will hold Polymet to its commitments or, if necessary, assume them. This is a dangerous gamble, and the proposal should be turned down on that basis, or at least altered to require all mandated remediation to take place within a viable timeframe.	PD01
17118	...the remediation operations proposed by Minnesota PolyMet are virtually guaranteed to fail...because the company's operations create dangerous waste that will have to be actively managed for centuries. This management presumes the existence of a basically uninterrupted supply of electricity to power the reverse-osmosis process of water filtration, the continual existence of a corporate or state bureaucracy to operate the equipment, and a level of political stability and cohesion necessary for these electrical and organizational systems to endure.	PD01
<b>Sender Name (Submission ID)</b> Benjamin Tsai (58160)		
19996	The PolyMet SDEIS is still inadequate....It doesn't analyzethe effect of pollution on workers' health or on nearby drinking water wells. It doesn't explorealternatives that could reduce PolyMet's destruction of wetlands. It doesn't examine the effect thatPoly Met's sulfide mine, combined with other mines, would have on toxic pollution, like mercurycontamination of fish.The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake SuperiorBasin. Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surfacewater and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, andimpair health of adults and children... pollution from the mine tailings andwaste heaps would last for at least 500 years.	GEN03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Benji Pajari (11608)		
3291	I believe this project will bring jobs to the area.	SO10
3291	I believe this project will bring jobs to the area.	SO10
<b>Sender Name (Submission ID)</b> Bentleydog (21277)		
934	Land Exchange: The DEIS does not adequately address all the biological and land use issues with the land exchange. Additional information on the natural heritage and timber resources of the exchange lands need to be gathered. In the long run, the public is best served if the public gains much more public land than it gives up. The exchange ratio should be at least 2 to 1.	LAN03, LAN05
935	Storage of Tailings: To prevent the oxidation of sulfide tailings a tailings basin must be designed to secure those tailings...forever. Forever is a very long time. No made-made structure can be designed to last forever so at some point in the future the tailings storage facility will be compromised. At some time in the future the people of Minnesota will have to pay for and clean up the failing tailings storage facility. Large amounts of money put aside today for future remediation will fall short of what is really needed. Millions of dollars today will equate to pennies in the distant future. The DEIS should make very clear that the tailings storage facility will not last forever and at some time in the future the people of Minnesota will either pay huge amounts for a cleanup of endure sulfide pollution.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Bernard Malacina (29436)		
10980	I can't believe any company would want to endanger this area where you can actually drink from the lakes.	WR195
13868	I have personally worked in the BWCAW as a outfitter and have taken several canoe trips into this pristine area...I have had people from Denmark come to this country just to canoe in this area. Please stop putting our public lands into destructive companies hands.	WILD02
<b>Sender Name (Submission ID)</b> Bernice Norregaard (10440)		
547	Not only are the mines scientifically safe, but they add tax dollars to the local, state and federal coffers.	SO10
549	We can have both mining and clean air and water.	AIR14
1462	I believe that it is better to have the mines in Minnesota with its tough laws than in third world countries where they don't care how they pollute the air and water and they have no regard for the safety of their employees. We would not have children working for little of nothing so that big corporations can get even bigger profits. We have to care about those far off countries, because their polluted air and water does make it to North America.	ALT16
6946	The SDEIS studies will show that Polymet's plan to operate a mine on the Iron Range are very sound and will not adversely affect the air or water of NE Minnesota. In Minnesota we have strong environmental laws ... It is much better to have the mines here, where they will add to our productivity, rather than in third world countries that exploit not only the land, but the people as well.	SO10
<b>Sender Name (Submission ID)</b> Bernie Baltich (11524)		
2476	As a business owner in Ely, the community would be crazy not to re-utilize the old LTV site. All of the towns are in need of financial investment, this would help re-build failing communities.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bernie Baltich (11524)		
2476	As a business owner in Ely, the community would be crazy not to re-utilize the old LTV site. All of the towns are in need of financial investment, this would help re-build failing communities.	SO10
<b>Sender Name (Submission ID)</b> bernita flynn (38523)		
13571	The company says it will restore the land for 500 years following the sulfide mining? Really? They won't be around and our future generations will be the ones to suffer.	FIN01
13572	Minnesota should be putting its efforts and funds into alternative forms of energy such as solar and even nuclear. Both would create more skilled jobs that pay higher wages that could employ our graduating college students who are now unable to find jobs. We must stop destroying our land and atmosphere and it is time to take other forms of energy seriously.	SO02
<b>Sender Name (Submission ID)</b> Bert and Cynthia Weberg (57171)		
18692	Have other sulfide mines been near a big body of fresh water? If so, what are/were the results? We would hate to be part of the generation that would allow Lake Superior and other great lakes to be poisoned.	PD26
<b>Sender Name (Submission ID)</b> Bert BG Hyde (42868)		
8896	4.2.1. – pg 4-17 – last Paragraph [SDEIS text] “In May 2009, Cliffs Erie conducted a detailed assessment of both surface and ground water...”I am amazed that the mine is assessing their own potential water pollution/contamination – and found no off site contamination... If this is an example of how the MDNR would be monitoring the sulfide mining I have no faith in that kind of oversight. The only alternative that the MDNR can choose is the “No Action Taken” plan.	WR139
8898	Table 4.2.2.1 – Air Temp and Precipitation: The period of record – Babbitt = 1948 – 1986, Hoyt Lake 1958-1984. This data is 28-30 years old. Climate change data is collected from the early 1980s to the present. Table 4.2.2.1 is obsolete. It is of no factual value. Why was it included? It just adds to the bulk of the document without adding to the decision making process.	WR072, WR077
8899	Impaired waters – there is no mention of any CONSEQUENCES meted out to those who impair the waters. Any financial consequence that any mine pays for violating laws, rules, regs.... Is figured into their cost of doing business (CODB) – no mine executives have ever served jail time for poisoning our drinking water.	FIN14
8900	Table 4.2.2.2. – There is nothing on page 4-29 that indicates any ACTION to be taken by the MDNR to stop Hg or any other pollution from taking place!	MERC15
8909	Table 4.2.6.4. has no information about Hg in fish tissue. The IBI doesn't tell me much, mostly “N/A” 61 and 33 – 61 & 33 scale of 0-100 does not indicate good fish assemblage conditions. Why is this disinformation included in the SDEIS?	AQ04, AQ10
8910	Pg 4-45 1st paragraph – fails to mention that in the area of Harris Lake is one of the old quarry sites probably operated by the Cold Spring Quarry Co. As noted elsewhere blasting can contribute to fracturing ground and bedrock which could lead to ground water being transmitted through bedrock over distances of thousands of feet. Pollutants would also be transmitted into the surface water and water table and watershed. Harris Lake area is in the Kawishiwi River watershed which flows into the Boundary Waters Canoe Area Wilderness.	WR010, WR016, WR061, WR081, WR090
8911	Pg 4-45 and 46, 47 – The content of these pages is so well hidden that I could not understand what the author was trying to communicate.	EDIT01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bert BG Hyde (42868)		
8917	Table 4.2.2.-5 – Well aquifer tests are so few in number as to be insignificant.	WR071, WR072, WR078
8920	MDNR measured Partridge River during winters 2008, 2010, and 2011. PolyMet used 1985-86-87 to estimate their data. What is the value of using data almost 30 years old especially in light of changing rainfall characteristics due to climate changes? Why would PolyMet use out of date Information?	WR003, WR077
8923	Average monthly outflow from Pit 3 (SD012) was about 0.7 cfs, or 1, 814,400 cubic feet/month or 241,920 gallons/month. What does average winter outflow 40.1 cfs mean? 47,520 cubic feet/month? 6336 gallons/month?	WR201
8929	[Text from SDEIS] "Colby Lake is on the MN 303 (d) TMDL list because of mercury concentrations in fish tissue...A TMDL study of Colby Lake is needed to determine what actions are required to reduce the mercury concentration in fish, but has not yet been performed." - Why has the MDNR not got around to starting to protect the public from this toxic element?	MERC22
8934	“Water quality is affected by local runoff from the former LTVSMC processing plant operations” – Is this an example of how the DNR will protect the environment/water quality after PolyMet has abandoned its mining operations?The poor water quality exhibited by these streams is an indication that the permitting process does not prevent water pollution. It documents how much the water has been polluted. There is no mention of CONSEQUENCES that fall upon the mine. At best they may try to mitigate the pollution – but by the time the pollution has been reported, documented, debated, sued-counter sued ... much of the land/water scape has been damaged-destroyed-poisoned.	WR139
8936	High concentrations of sulfate inhibit or prevent wild rice from thriving in waters that would otherwise support an abundance of wild rice... There were several bodies of water that were examined and found no wild rice but then no water samples were tested for sulfates. Why not? Could too high a concentration of sulfates totally kill off a wild rice bed? Wouldn't PolyMet want to know that?	VEG04, WR156, WR157
8938	Paragraph 3 – Last sentence LTVSMC tailings are still seeping from the abandoned mine. Is this an appropriate example of how well abandoned mines are allowed to continue to pollute ground water and surface water? And how well the DNR can prevent pollution from mines in the first place.	PER06, WR070
8941	Were the results of the tests of the residential wells made available to the residents who drank the water from those wells? Were the results an explanation of the results made to the residents? What is the state of their health relative to their drinking water?	HU13
<b>Sender Name (Submission ID)</b> Bert Hyde (46196)		
8220	Pg.3-136 Section 3.2.2.4 Financial AssuranceParagraph 2 - The wetland mitigation that would be constructed should require financial assurances.	FIN11
8221	Why are the financial assurances not spelled out in the SDEIS? These should stand to answer many of the "what if?" questions raised in these SDEIS reviews. With all the pages of "infrastructure" that PolyMet has generated, it seems suspicious that they did not have the time, resources, or expertise to put together a complete and accurate financial assurance plan.	FIN08
8223	Please have PolyMet submit a true financial assurance detailed statement. Please include financial assurances that include information that extends 500 years into the future. Please include information that would make clear how the state of Minnesota would not be financially liable for environmental clean-up if PolyMet goes bankrupt, dies, disappears, or otherwise "skips town."	FIN01, FIN08, FIN10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Bert Hyde (46196)	
8246	Pg. 3-158 Section 3.3.1.1 Priority 2, 2b through 2e The reasons that the land exchange should NOT take place: I ask that the USFS reconsider and then refuse the USFS land exchange. 2a and c Land that enhances recreational opportunities, public access, and aesthetic values. The area of the proposed land exchange includes much of the High Value Biodiversity, 100-mile Swamp wetlands. This area supports many varieties of life forms that are not common to other areas in Minnesota. Caltha natans and Felm Canadensis are but two.	LAN04
8247	2e. The Partridge River, among others, would be severely negatively impacted by this PolyMet project. The Partridge River flows into the St. Louis River, then Lake Superior. Heavy metals and other toxic and carcinogenic pollutants would definitely be washed to the lake Superior waters.	WR111
8251	Pg 4-192 - 4.2.3.3 Threatened and Endangered Plan Species There are three state-listed ETSC plant species. Even though they are not federally listed, that does not weaken the argument that they are rare and unique individuals and deserve full protection. The land exchange would doom these plants and their community. The No Action alternative is the only fair and reasonable path.	VEG01
8253	Pg 4-1732 Mn Biological Survey, paragraph 2 Two native plant communities: Black Spruce-Jackpine woodland (FDn32c) is 34% of the mine site and Rich Black Spruce Swamp are characterized by the MBS as "imperiled/vulnerable" and "vulnerable" - another reason for the No Action alternative.	VEG02
8260	Pg 5-4, 5.2.1.2.2 paragraph 1, last sentence: "The USFS also requires preparation of associated reclamation plans to insure the long term protection and restoration of the natural resources." The SDEIS has not documented the "protection and restoration" of the natural resources.	VEG05
8264	See pg 3-124, 3.2.2.3.1.2 PolyMet says they have developed a Reclamation Plan, but they WILL submit it to the MDNR (not USFS) as part of the permit process. These plans should have been included in the SDEIS for examination and evaluation by the public. I ask that these plans be included in the next draft of the EIS.	PD09, PD35
8271	5.2.1.2.3 - Areas of Concern. #8 groundwater plume & all other AOCs need to be investigated long before the mine would close. This is so irresponsible! The MDNR needs to protect the environment against groundwater pollution. Pg 3-158 Priority 2, 2b, and 2c. Deny PolyMet their permits. Choose the No Action alternative to ensure groundwater safety.	WR012
16168	Please have PolyMet submit a true financial assurance detailed statement. Please include financial assurances that include information that extends 500 years into the future. Please include information that would make clear how the state of Minnesota would not be financially liable for environmental clean-up if PolyMet goes bankrupt, dies, disappears, or otherwise "skips town."	FIN01, FIN08, FIN10
16169	I ask that the USFS reconsider and then refuse the USFS land exchange. ... Land that enhances recreational opportunities, public access, and aesthetic values. The area of the proposed land exchange includes much of the High Value Biodiversity, 100-mile Swamp wetlands. This area supports many varieties of life forms that are not common to other areas in Minnesota. Caltha natans and Felm Canadensis are but two.	LAN03, VEG01, WI02
16170	The Partridge River, among others, would be severely negatively impacted by this PolyMet project. The Partridge River flows into the St. Louis River, then Lake Superior. Heavy metals and other toxic and carcinogenic pollutants would definitely be washed to the lake Superior waters.	WR111
16171	There are three state-listed ETSC plant species. Even though they are not federally listed, that does not weaken the argument that they are rare and unique individuals and deserve full protection. The land exchange would doom these plants and their community. The No Action alternative is the only fair and reasonable path.	VEG01
16172	PolyMet says they have developed a Reclamation Plan, but they WILL submit it to the MDNR (not USFS) as part of the permit process. These plans should have been included in the SDEIS for examination and evaluation by the public. I ask that these plans be included in the next draft of the EIS.	NEPA08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bert Hyde (46196)	
16173	groundwater plume & all other AOCs need to be investigated long before the mine would close. This is so irresponsible! The MDNR needs to protect the environment against groundwater pollution.	PER04
18424	Pg 3-2, sect. 3.1.1.1. – 2 para “New processing buildings...further refine” what does it mean “refine”? Is this smelting? How does it differ from smelting?	PD33
18426	3.1.1.2. High potential waste rock moved from lined stockpiles to E & C Pits – how is waste rock stored in E & C Pits relative to permanently being stored to prevent contamination? Waste rock would be moved after 11 years to the permanent storage – what kind of linings would protect the waste rock/water – how is it being monitored?	PD35
18427	Pg 3-4 3.1.1.5 – what are hydro metallurgical residue? Geomembrane layer? Geosynthetic clay? Geo composite drainage system?	GT10
18429	Pg 3-63,2,1 – Construction of permanent featuresUnderwater store for most reactive rock – and one flooded mine pit – How will this technique protect surface/ground water from pollution that is stored underwater? How will these polluted waters not get into the groundwater & watershed?	WR029
18431	Pg 3-7, #5 “Construction of temporary...removed...before or at closure” “Caps and covers...could be adapted to alter water infiltration as needed”-Post closure should only involve passive means – especially given that environmental assurances must be in place for many, many years. PolyMet will not be able to maintain the post closure environmental safeguards. They will no longer exist.	PER03
18432	The No Action alternative is the only course of action that protects both the environment and tourists, hunters, fishers, and those who want to experience and learn from the untraveled wilderness...	ALT14
18434	Public land that may be leased – exchanges from USFS to PolyMet. What is public paid for the minerals that will be taken? How much is that per person? What is done with the money given to the public for selling its minerals to the Polymet mine et al?	SO04
18444	Pg 3-46 3.2.2.1.8 – Category 1 stockpile....Para 3, last sentence “Performance modeling .... Capture efficiency greater than 90%.” When talking about many millions of gallons of water for many years 90% is quite a lot of polluted water. It is too much!	WR070
18448	Pg 3-52Waste water Tx FacilityPara 1, last sentence: A Reverse osmosis unit ... WWTF at closure. RO is not passive. It needs to be maintained for many many years. Who will do that?	PER19
18451	Pg 3-59 & 3-72 Both mechanical and non-mechanical Tx would require periodic maintenance and monitoring activities ... duration of the [ILLEGIBLE]. 200 years mine site, 500 years at plant site.These numbers are astounding! Please explain why they were included! Obviously no one will be maintaining or monitoring anything in 500 years.	PD03, PD06
18453	Pg 3-79, Post Closure Act, Para 1, last sentence: How will future rules and regulations and laws impact the PolyMet Co? Will they be held to the future rules, regs, laws or will they be “Grandfathered” in to the present standard (which might be a lower standard assuring that future standards will be even more environmentally enlightened and advance? “to achieve future water quality criteria....”	PER06
18455	Pg 3-95 “Dewatering” – I could not find definition in glossary. What is the dewatering process?	PD20
18456	Pg 3-100 What is the chemical composition of the slurry and the tailings? What happens to the methyl isobutyl carbonyl and polyglycol ether?	PD18
18457	Pg 3-101 What backup for power failure will be in place? Is there a plan for solar or wind power?	PD22

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bert Hyde (46196)	
18459	Pg 3-102 Beneficiation Process Water – What is average annual makeup water? Is average annual demand of 275 gpm = 144,540,000 gallons per year?	PER09
18463	3.2.2.3.5 □. Why would 11.27 million short tons be placed on top of unlined tailings basin each of the first 7 years.	WET12
18464	Pg 3-114, 3.2.2.3.7. High purity gypsum is a useful product – it should not be managed as waste – waste is ultimately very expensive.	EDIT01
18466	Pg 3-116, 3.2.2.3.1.0 □ what contingencies have been made for water-soil freeze – thaw cycles, frost heave, soil expansion-contraction especially dams, dikes, ditches, pond pipes...? Tailings Basin – again 90% of [ILLEGIBLE] seepage as capture rate is too much water left.	WR008, WR065
18470	Figure 3.2-28 = Assumption! Bedrock assumed no flow boundary price it. Tailings are shown to leak – bedrock contains fractures contaminated water will pass through bedrock into water shed.	WR108
18472	Pg 3-124, para 22312 – reclamation plan is not available for review. It should be included in the SDEIS.	PD09
18474	Pg 3-128 Product and Product tank disposal – 1st sentence & 2nd sentence: --Polymet should be responsible for the totality of all materials that they cause to be brought to the site,	PD36
18478	Cover and Revegetation— Use of non-native, rapid growth mix—Native plants should be used. Non-native invasives will be brought into the mine site by heavy equipment and workers vehicles soon enough without putting it into the plans, “Disturbed areas on the plant site...” any areas left undisturbed?	VEG05
19436	I am amazed that the mine is assessing their own potential water pollution/contamination – and found no off site contamination.... If this is an example of how the MDNR would be monitoring the sulfide mining I have no faith in that kind of oversight. The only alternative that the MDNR can choose is the “No Action Taken” plan.	ALT14
19437	Table 4.2.2.1 – Air Temp and Precipitation... The period of record – Babbitt = 1948 – 1986, Hoyt Lake 1958-1984. This data is 28-30 years old. Climate change data is collected from the early 1980s to the present. Table 4.2.2.1 is obsolete. It is of no factual value.	AIR01
19438	4.2.2.1.2 – water use-ground water, surface water impaired waters – pg 4-25 impaired waters – there is no mention of any CONSEQUENCES meted out to those who impair the waters.	WR139
19439	There is nothing on page 4-29 that indicates any ACTION to be taken by the MDNR to stop Hg or any other pollution from taking place!	MERC02
19440	I could not find section 4.2.6.4 – table 4.2.6.4. has no information about Hg in fish tissue. The IBI doesn’t tell me much, mostly “N/A” 61 and 33 – 61 & 33 scale of 0-100 does not indicate good fish assemblage conditions. Why is this disinformation included in the SDEIS?	AQ04
19441	Pg 4-45 and 46, 47 – The content of these pages is so well hidden that I could not understand what the author was trying to communicate. If the goal of this SDEIS is: (ES-3, 1st column, 4th line from bottom) “The purpose of the SDEIS is to describe the process undertaken to evaluate the issues related to and predicted effects of the NorthMet Project Proposed Action and Land Exchange Proposed Action and alternatives” it has failed me. This description does not communicate!	NEPA07
19442	Pg 4-53 Paragraph 2 – “As recognized in other studies (MDNR 2004; Siegel and Ericson 1980) aquifer testing (Table 4.2.2-3) showed that the ability of the surficial sediment to transmit water was highly variable and depended upon location and thickness of the sediments. No data were available regarding the storage parameters for the surficial deposits.	WR071, WR072, WR095

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bert Hyde (46196)		
19443	Table 4.2.2.-5 – Well aquifer tests are so few in number as to be insignificant.	WR071, WR072, WR078
19444	Pg 4-66 Upper Partridge River Base Flow...MDNR measured Partridge River during winters 2008, 2010, and 2011. PolyMet used 1985-86-87 to estimate their data. What is the value of using data almost 30 years old especially in light of changing rainfall characteristics due to climate changes?	WR003, WR071, WR086, WR091
19445	Pg 4-86 Colby Lake is on the MN 303 (d) TMDL list because of mercury concentrations in fish tissue which are considered too high to be returned to MN mercury water quality standard. A TMDL study of Colby Lake is needed to determine what actions are required to reduce the mercury concentration in fish, but has not yet been performed.	WR123
19446	The poor water quality exhibited by these streams is an indication that the permitting process does not prevent water pollution.	PER06
19447	There were several bodies of water that were examined and found no wild rice but then no water samples were tested for sulfates.	WR152
19448	Pg 4-111 Were the results of the tests of the residential wells made available to the residents who drank the water from those wells? Were the results an explanation of the results made to the residents? What is the state of their health relative to their drinking water?	WR039, WR041, WR142
<b>Sender Name (Submission ID)</b> Bert Weberg (54572)		
18229	Some years ago, the acid rain resulting from emissions from coal fired power plants south of us was a problem for the northern Minnesota ecosystem. Would the acid resulting from the extraction and processing of the sulfide ores present the same problem?	AIR04
18230	In other sulfide mine sites, as in So. Africa, have there been problems with dust from the mining process? We worry about the workers and flora/fauna in nearby forests.	AIR09
<b>Sender Name (Submission ID)</b> Beryl Schewe (40146)		
6729	Can we realistically accept a plan that demands remediation for the next 500 years? Do we expect PolyMet to exist in 500 years?...If the pollution proves too costly for PolyMet to clean up, they will most likely file for bankruptcy and leave Minnesota with both the spoiled and polluted environment and the bill for the cleanup.	FIN01
<b>Sender Name (Submission ID)</b> beshig (44126)		
14898	You have the Scientific Data ,Enforce it? Tell polymet and their Chinese Investors to go elsewhere!	SO06
<b>Sender Name (Submission ID)</b> Beth Blackledge (10139)		
357	We have water in Minnesota so why should we take any chance of polluting it with a material that wrecks it for people and wildlife?	WR115
358	The only people making large amounts of money are the owners of the companies, and it is my understanding that no one has on record just who these companies are.	SO02
<b>Sender Name (Submission ID)</b> Beth Davidson (11548)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Beth Davidson (11548)		
2503	It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	WR041
2504	It doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	WET20
2506	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin. Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	FIN05, FIN01, WR066, WR130
2506	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin. Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	AQ05, WR107, WR108, WR156, WR158
2507	PolyMet makes a lot of rosy predictions, but the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity."	WR111, WR115
2507	PolyMet makes a lot of rosy predictions, but the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity."	WR035, WR070
7476	The PolyMet SDEIS is still inadequate. It makes claims without facts behind them. It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells. (...) explore alternatives that could reduce PolyMet's destruction of wetlands. ... effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	COE03, WET20, WR041
7476	The PolyMet SDEIS is still inadequate. It makes claims without facts behind them. It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells. (...) explore alternatives that could reduce PolyMet's destruction of wetlands. ... effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	COE03
<b>Sender Name (Submission ID)</b> Beth Gohdes (57986)		
19865	the long term effects of keeping the water clean are not being acknowledged.	PD01
<b>Sender Name (Submission ID)</b> Beth Lewis (9291)		
1105	I favor the no action alternative on the USFS Land Exchange proposal because when I looked at the locations and description of the tracts of land which PolyMet proposes to swap for the mining site USFS land, I do not feel they are of equal environmental quality. This seems especially true regarding the location, size and quality of wetlands.	LAN03
1108	I asked for more explanation on wetland mitigation required under the Wetland Section 404 of the Clean Water Act. Again, I was shown a map and the areas which PolyMet are proposing to mitigate to offset the destruction of wetlands at the mining and processing sites. These sites are small and at scattered locations, most outside of the St. Louis River watershed.	COE01
1110	I believe the Tribal Agencies Major Difference of Opinion #8 on the method of assessing indirect impacts from mine dewatering and groundwater drawdown should get further consideration. I agree "that the USACE should require up front mitigation for all severely impacted wetlands, but at a minimum up front mitigation should be required for wetlands occurring in Zone 1" and other recommendations. I also believe this wetland mitigation should be in the St. Louis River watershed.	COE01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Beth Lewis (9291)		
1114	Despite the improvements in the supplemental draft, I think the SDEIS needs better data for analysis and further work. Based on the information I have learned from the SDEIS, I believe the St. Louis River watershed will suffer a loss of critical wetlands and risk further contamination to wild rice areas and water quality for plants, animals and humans. This is not acceptable.	GEN03
10781	I do appreciate the extensive work which the Co-lead and Cooperative agencies staff have done on both initial and supplemental DEIS.	NEPA16
10783	I believe more than 90-day review period is warranted for people with the necessary technical knowledge to thoroughly review this analysis and provide substantive comments.	NEPA07
10787	I view the proposed land swap, not in terms of number of acres or appraised value, but in terms of the USFS mandates on forest management. The environmental risks associated with swapping the land requested by PolyMet seem to out number the environmental benefits for the various other parcels.	LAN01
10789	The Lake Superior watershed is already at risk from mercury and other pollutants. The SDEIS materials impressed me with the scope and duration of this mining and processing operations. Tons and tons of tailings are going to be mined and moved in a sensitive, water-rich environment for 20 years. The new flow data on the Partridge River needs to be factored into the hydrological modeling. Why would we risk even a 10% chance of further polluting this key watershed?	WR003
10790	I am also concerned about the quantity of water used in the mining and processing and the impact to groundwater and aquifer sources. The report predicts no significant changes to groundwater and surface water flow when compared to existing average conditions. Yet, I did not read how mining operations will be adjusted in prolonged periods of drought and low water levels, as we have experienced in northeast MN over the last several years and should expect to experience even more in coming decades.	WR181, WR182, WR188
10792	I am also very concerned about the processing facility on the LTVSMC site and the QEAA on groundwater pollution. I...found credible the projection by investment analyst, Wayne Atwell of Edison Investment Research, that the mining company will want to maximize the use of this processing facility for return on investment and increase daily ore production from 32,000 to 90,000 tons per day...I believe this EIS should include modeling with possible daily increases in production.	PD29
10794	What if something goes wrong? In all of this technical analysis, I didn't see "what if" scenarios of impacts if something goes wrong. There is enough history of nonferrous mining to inform a list of key things that can go wrong, what mitigation would be required and possible environmental impact.	PD22
10795	Financial assurance will be legally required. The key questions are how will it be calculated and how much? Will it be adjusted as scope of project changes or unaccounted environmental impacts occur? How do we put a commodity price on clean water?	FIN05, FIN08
<b>Sender Name (Submission ID)</b> Beth Yokom (43334)		
15592	Water is essential for all life, and in MN we are especially known for our water...Land of 10,000 Lakes... To consider jeopardizing our water flabbergasts, confuses and disappoints me.	WR195
<b>Sender Name (Submission ID)</b> Bethany Ebert (9599)		
8657	Therefore it's possible they also gave inaccurate information about air pollution. ... people in the world who are predisposed to cancer, and too many carcinogens in the air could aggravate their conditions, causing more illness and death.	AIR11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bethany Ebert (9599)		
8659	What sort of risks would the pollutants in the atmosphere bring to a fetus in the first trimester, or a newborn?	HU01
9966	PolyMet gave inaccurate information about the amount of waterflow. Therefore it's possible they also gave inaccurate information about air pollution.	WR003
9967	What sort of risks would the pollutants in the atmosphere bring to a fetus in the first trimester, or a newborn?	HU01
10663	it's also true the quality of life while living should be a good one. PolyMet is not going to do much to improve the quality of life. It will just make the environment more polluted. A lot of people here like to fish and hunt, a lot of people like walking their dogs, a lot of people like just hanging out by the lake, and if the mining happens, who's to say any of that would continue?	LU06
11010	What sort of risks would the pollutants in the atmosphere bring to a fetus in the first trimester, or a newborn?	HU01
11011	PolyMet gave inaccurate information about the amount of waterflow. Therefore it's possible they also gave inaccurate information about air pollution.	AIR11
13382	Please also keep in mind there are some people in the world who are predisposed to cancer, and too many carcinogens in the air could aggravate their conditions, causing more illness and death.	HU03
13384	A lot of people here like to fish and hunt, a lot of people like walking their dogs, a lot of people like just hanging out by the lake, and if the mining happens, who's to say any of that would continue?	LU06
13388	Kids should be able to get outside and play. If there's a lot of pollutants in the environment, this kind of ruins that.	LU06
16222	A lot of people here like to fish and hunt, a lot of people like walking their dogs, a lot of people like just hanging out by the lake, and if the mining happens, who's to say any of that would continue?	LU06
<b>Sender Name (Submission ID)</b> Bethany Owen (38907)		
5408	The regional economic benefits of PolyMet being permitted to safely mine this valuable mineral deposit radiate outward far beyond the 75-mile distance between the proposed mine in Minnesota and our facilities in Wisconsin. Our regional economy is highly integrated through suppliers, contractors and qualified workers. Of course, our environment is highly integrated as well - sharing the tremendous fresh water resource that is Lake Superior.	SO10
5409	We believe we can have economic growth and jobs, while also protecting our environment. Damaging practices from the early days of mining are no longer tolerated or allowed...Technology and environmental science have evolved, bringing positive changes to the mining industry just as they have to virtually every other industry in our region.	SO10
<b>Sender Name (Submission ID)</b> Bethel Anderson (42722)		
9906	Please reconsider allowing us more time to comment on this EIS document.	NEPA07
17427	At present, in the St. Louis River, sulfate has been shown to produce methyl mercury, which bio-accumulates in the fish. Adding sulfates to the tributaries which feed into the St. Louis River will occur under the SDEIS, both from mass loading from sulfate and from the seepage waste piles.	WR107, WR108

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bethel Anderson (42722)		
17428	This project [Polymet] would add particulate and nitrogen oxide load and further degrade air quality.	AIR13
17432	Another heavy metal that needs to be considered in a health risk assessment in Manganese. (...) This problem of manganese in the ground water has not been mitigated, and is an inherited problem for Polymet, as they plan to pile further waste on top of this basin. (...) High levels of manganese in drinking water are harmful to health and have been associated with several neurological problems, both in young children and older people.	HU02
<b>Sender Name (Submission ID)</b> Betsy Blume (44364)		
10374	Noise pollution near wilderness areas like the BWCAW will affect users (like me!) and the economic interests of the community that supports these recreation gems.	N02
10375	It is an experiment that Polymet proposes in dealing with the issues of polluting our watersheds. New technology is not evidence that the projects will not have severe long term damage to our water resources.	WR128
<b>Sender Name (Submission ID)</b> Betsy Bowen (42857)		
8814	The Boundary Waters and Lake Superior are precious in the health and welfare of the land that these waters support, and while I do care about jobs for supporting the local people, nothing I have read and studied about this proposal sounds like the risk is worth it... I urge you to protect the water quality. Over-protect it. Without clean water, we are all lost.	WR081
8814	The Boundary Waters and Lake Superior are precious in the health and welfare of the land that these waters support, and while I do care about jobs for supporting the local people, nothing I have read and studied about this proposal sounds like the risk is worth it... I urge you to protect the water quality. Over-protect it. Without clean water, we are all lost.	SO01, WILD02, WR081, WR195
<b>Sender Name (Submission ID)</b> Betsy LePlatt (23581)		
3514	I am very concerned about trading our long term environmental health for short term and not clearly spelled out financial gain.	SO01
3515	One of the things which concerns me most is permanent water pollution. I do not think it is good enough to base such important decisions on "probabilistic simulations," or computer models, of the effects of Polymet's mining activities on water quality.(...) I read the other day that the flow rates on the Partridge River entered on the SDEIS were wrong.	WR003, WR035, WR189
3519	The long term economic impact of this project is also a big concern of mine. Would the clean up cost the State more than the economic gains of the project?	SO04
<b>Sender Name (Submission ID)</b> Betty Holmen Greene (54730)		
18773	In addition, this is just the first of many proposed projects, and it is important to consider the cumulative effects of many copper-nickel sulfide mines.	CU04
18775	Among the unanswered questions are the health impact both on humans and on wildlife, such as moose and lynx. Clean water is vital for both humans and moose and other wildlife.	WI01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Betty Holmen Greene (54730)		
18777	The impact of wetland destruction needs to be carefully considered. Mitigation of wetlands using lands in other watersheds does not really help, especially for wildlife directly impacted by the lost wetlands.	WI02
18778	The impact of sulfates on wild rice needs careful review and consideration. Wild rice is of vital importance to Minnesota's Native American tribes, and the St. Louis River watershed flows through tribal lands. The U.S. Government and Minnesota do not have the greatest track record of respecting the rights of sovereign tribes. The impact on and needs of the sovereign tribes must be given high consideration.	VEG04, WR156, WR157
18780	Hard-rock mining carries the potential for asbestos-like minerals to be released in water effluent or air emissions. The supplemental EIS does not adequately address this, even though the effect on human health of asbestos-like minerals is an emerging concern in Northeastern Minnesota.	AIR03
18783	Sulfide mining will place a huge burden on taxpayers. It is not possible for PolyMet or any other company to provide enough financial funding up front to handle post-closure treatment, monitoring and maintenance, leaving the burden on taxpayers. In addition, should an incident affecting the water supply happen during the mining process, the likelihood of PolyMet or any other company actually providing the clean-up funds is minimal.	FIN01, FIN10
18785	If we lose our precious water resources, the economy of the whole region will be greatly adversely affected, and Minnesotans are the ones who will have to deal with that, in terms of both our health and our finances.	WR195
18786	The environmental review process has not adequately addressed the cumulative impacts to water, land, or air and the degradation of these vital resources for wildlife or for future generations.	CU11
<b>Sender Name (Submission ID)</b> Betty Preus (46968)		
10853	- Health risks such as exposure to mercury, asbestos and arsenic. Mercury is already a problem with 10% of newborns in the Lake Superior basin. Polymet admits that mineral dust released could harm workers and nearby residents. Doctors have recently requested a study of the potential health impact of this project. Let's study the potential impact and not the problem after it has sickened or killed many people.	HU01
10855	- Hundreds of years of polluted water seeping into our streams. I am not convinced that Polymet would be able to contain all polluted water. It will inevitably seep into our clean waters. Boundary Waters rivers have been named at risk for pollution as a result of this proposal. The Boundary Waters is a most precious resource that we simply must preserve for future generations.	WR111, WR129
10857	- Destruction of 6,000 acres of wetland which are currently habitat for our endangered moose and lynx populations and many other species.	WI02
10858	- Questions about whether Polymet would cover the costs of cleanup and whether they would be paying fair taxes. To me, I don't think it would be possible for them to pay enough for damage and taxes because they would be destroying a treasure that is priceless and irreplaceable.	FIN01
<b>Sender Name (Submission ID)</b> Betty Tisel (38391)		
9609	I am concerned that the SDEIS does not include any analysis of the health effects for on-site workers at the mine...The SDEIS must analyze particles and fibers in crushing plant air, not just air outside the property boundary.	HU04
13653	The only "health-risk assessment" in the SDEIS was done for people who are off-site...Other Minnesota environmental impact statements and documents have looked at cancer risks for workers. Why not PolyMet?	HU04
13654	The PolyMet site is a "lean" deposit of copper and nickel - 99% of what is dug out of the ground will be considered waste. Blasting and grinding the dug-up rock will unleash huge amounts of particles and fibers that workers will breathe.	AIR03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bev Scalze (47482)		
11194	[SDEIS does not include financial analysis] The SDEIS doesn't account for the replacement capital costs of the mine proposal, eg. water treatment plant, holding pond liners, etc.....The draft SDEIS doesn't include capital costs of the life of the liners of the pits or stockpiles, nor does it include methods to monitor the liners and the replacement of those liners and the surrounding possibly-contaminated soils and aquifers.	FIN05
11247	The aquifers surrounding the proposed sites haven't been monitored for the existing conditions of the waters. The draft SDEIS doesn't include maps and analyses of surrounding streams and rivers as to their existing conditions and a process for monitoring in the future. No accounting for monitoring of conditions in the 200 and 500 year models as included by Polymet. The Polymet document labeled Figure H-16-24.2 shows Mixed Influent Cncentration (ug/L) at year 200 that is six times higher than the present water quality standard.	WR060, WR071, WR078, WR079, WR081, WR173
11249	The SDEIS is silent regarding emergency measures in case of failures in construction and treatment	PD22
17924	The SDEIS doesn't analyze the relationship between Polymet and Glencore Xtrata. If the Glencore firm is a silent partner, or at least a financier, that information should be included in the SDEIS because a partner or assign should be part of the application for the permit. The partner or assign (or any other term) should be noted so that all parties are included in the permit and are responsible for cleanup if Polymet (or NorthMet) goes bankrupt.	PER02
<b>Sender Name (Submission ID)</b> Beverly Blinde (42457)		
6794	The risk to our children, grandchildren, and the environment for many generations to come is too great - and not worth the benefits of a few jobs for a few years.	SO01
<b>Sender Name (Submission ID)</b> Beverly Finke (16154)		
11169	Please continue to stand up for Minnesotans, and the many people from the states and around the world who have enjoyed the Boundary Waters area, and wish to continue to do so; this is an irreplaceable asset that should be kept available in its present condition for generations to come,	WILD02
11172	The proposed mine plan isn't just a minor inconvenience. It strikes me as big business making money on the backs of ordinary citizens who would give up far more than they would benefit from the proposed mine plan.	SO02
<b>Sender Name (Submission ID)</b> Beverly Gillen (40727)		
6667	My family has camped in the Boundary Waters and experienced its beauty and peacefulness. We cannot afford to have this resource polluted by mining companies who lamely promote job growth but are really counting profits.	WILD02
<b>Sender Name (Submission ID)</b> Beverly Hanson (42727)		
14364	The ground water and beauty of a natural area is my major concern. I DO NOT trust the mining companies to do the right thing.	LU04
14365	I am writing to express my concerns about open pit mining for copper/nickel in northern Minnesota.Jobs are important, but at what cost?	SO01
<b>Sender Name (Submission ID)</b> Beverly M Berntson (42738)		
11478	I notice lack of proof that the efforts at mitigation stated in the SDEIS will be effective. The SDEIS was supposed to analyze alternatives to prevent this loss and destruction, but in more than 2,160 pages there are no alternatives to avoid or minimize wetland loss.	WET01, WET04, WET20

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Beverly M Berntson (42738)		
11484	The SDEIS claims that putting a compressed dirt pile in a trench is "better" than using a liner for this huge waste rock pile, however it gives no facts. I ask that further studies be conducted to analyze putting a liner under the 526-acre Category 1 permanent waste rock pile located right next to the 100 mile Swamp. No permit should be granted without a liner.	ALT07
14411	I am writing because I am extremely concerned about the potential effect on wetlands that the PolyMet Sulfide mine (section 404) could have, both in the relatively near and the very far future. While the SDEIS admits that the mine will directly destroy 913 acres of wetlands as well 7,315 acres of wetlands that could be lost due to pollution and changes in water patterns at the mine and tailings site, I notice lack of proof that the efforts at mitigation stated in the SDEIS will be effective.	COE02, WET01
<b>Sender Name (Submission ID)</b> Bianca Geisdorf (18104)		
13470	Jobs are important for the future of the students of Mesabi East and the Iron Range. ...We need these jobs that PolyMet will bring to our towns for strong communities and thriving families; not ones that just get by living in poverty. We truly care about our land, air and water and believe that the SDEIS is sufficient to address this. The co-lead agencies have done the job needed to show that PolyMet will not pollute our land, air and water.	SO10
<b>Sender Name (Submission ID)</b> Bill (6595)		
1087	Let them build the copper mine so we can have jobs in Minnesota.	SO10
3464	Obviously there is a tremendous need for jobs here in our area, not China. We need the metals. We also care if mining is done environmentally responsibly to maintain our clean water and air.	SO10
15915	I have confidence in the DNR and believe the SDEIS process for PolyMet Mining's proposed NorthMet project has been sound and thorough. The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
15917	I'd also like to address some misinformation that has been reported in the media about the 200 and 500 years referenced in the SDEIS. In the groundwater flow model in the SDEIS, water percolates through the bedrock at an extremely slow rate of travel. For this reason, the model was run for 200 to 500 years, allowing enough time for water to move through the aquifer and reach the compliance point at the boundary included in the SDEIS.	WR190
19926	I look at the opportunity to bring PolyMet to our area and look at the needs, the jobs, the benefits, and (inaudible) and also look at the challenges that face a project like this in water quality, wetlands, wildlife. ..Tourism by itself is not providing sustainability. Obviously there is a tremendous need for jobs here in our area, not China.	SO10
<b>Sender Name (Submission ID)</b> Bill & Nancy Henke (4783)		
1895	Full financial assurance by my definition means that it is provided for by the company inflicting the damage, for the duration, whether this is for decades or for hundreds of years. The monetary amount backing this full financial assurance should take into account not only industry projections of clean up needs but also worst case scenarios including catastrophic accidents and acts of nature that overcome technology.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Bill Collins (57476)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bill Collins (57476)		
19515	I have been actively following Polymet’s efforts and after reviewing SDEIS, news articles and opinion pieces I am confident PolyMet’s project will have no discernable impact on the natural environment while at the same time greatly benefitting the economic environment.	SO10
19516	I have personally invested in the project not only because of my confidence in PolyMet but also because I want to see my state benefit from the great jobs, economic synergy and expanded tax base and my country from the increase in the domestic supply of critical metals needed in many vital manufacturing industries.	SO10
<b>Sender Name (Submission ID)</b> Bill Conger (38700)		
11900	Please consider the quality of life, the value of wild and natural places, and the health of our citizens and environment and reject the PolyMet plan. It is difficult to place a dollar amount on the above items.	SO02
<b>Sender Name (Submission ID)</b> Bill Erzar (38801)		
4955	I believe that the PolyMet NorthMet project will provide an improvement in the Socio-Economic well being of the area communities, providing primary jobs and affiliated support industry employment.	SO10
4959	It will also provide the school districts and State with additional Natural Resource tax royalties.	SO10
4960	The much needed metals in this complex of copper, nickel, and metals of the PGM grouping will add to the nation’s available resources for our modern day technology that are widely used, and also diminish the need to rely on foreign operations for these minerals.	SO10
17050	[The NorthMet mine] will bring in good paying mining jobs with benefits that will also necessarily employ people in MSHA and County Mine safety engineering to make sure the miners work environment is safe.	SO10
<b>Sender Name (Submission ID)</b> Bill Fredrickson (43099)		
15880	I have followed this approval process for several years and strongly believe that the PolyMet Mining Company has operated in the best interests of the public and the enviroment. Both in the past and fully intends to meet all expectations in the future of the EPA and the Minnesota Department of Natural Resources.	NEPA16
15881	Minnesota really needs the jobs.	SO10
<b>Sender Name (Submission ID)</b> Bill Holden (58108)		
19970	St. Louis, Lake, and Cook counties have a combined population of approximately 220,000 people. The PolyMet plan estimates about 360 permanent jobs over the twenty year life of the mine. This means that the equivalent of .16% of the 3 county regions will have jobs through the mine.If those 360 jobs each pay \$100,000 per year then they will bring thirty six million dollars a year into the community, for the 20 years of operation.In 1996 David T. Schaller form the Department of Geography at the University of Minnesota did a research study of the economic impact of tourism in the region. He found that the major group of visitors are from Minnesota and visit for the fishing. He estimated the regional monetary impact of tourism at around fifty million dollars a year. Tourism and diversified small businesses will bring in that fifty million dollars a year for the next twenty years and on into our great grand kids’ futures.The issues are simple but deep. Short term extractive wealth and its threats to the established community or long term environmental and economic stability.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bill Holden (58108)		
19974	The DEIS states on page 5-7 that the mine and plant site might need hundreds of years of monitoring and maintenance. What American companies can you name that are still viable after only one hundred years? How will future inhabitants of northeastern Minnesota pay for this task?	FIN01
19993	The PolyMet plan estimates about 360 permanent jobs over the twenty year life of the mine. This means that the equivalent of .16% of the 3 county regions will have jobs through the mine .If those 360 jobs each pay \$100,000 per year then they will bring thirty six million dollars a year into the community, for the 20 years of operation. In 1996 David T. Schaller...estimated the regional monetary impact of tourism at around fifty million dollars a year...Short term extractive wealth and its threats to the established community or long term environmental and economic stability.	SO02
<b>Sender Name (Submission ID)</b> Bill Horsch (7663)		
813	I am writing to you today to thank you for the excellent job done putting together the NorthMet Mining Project and Land Exchange SDEIS for the PolyMet Project. It is a thorough analysis of all aspects of the proposed mining effort with specific solutions defined to address all areas where the environment could be impacted.	NEPA16
<b>Sender Name (Submission ID)</b> Bill Mckechnie (39014)		
4941	You cannot build this mine because the company and it's owners will not fund the two hundred plus years of compliance to protect their mine waste from our fresh water.	FIN01, WR037
4943	there is not enough jobs to make this [project] work either.	SO01
<b>Sender Name (Submission ID)</b> Bill Morrissey (42739)		
14414	I appreciate and support our environmental requirements and from what I have seen, they will be responsible stewards of the land and water. We need economic activity in northern Minnesota and ways in which we can raise new tax revenue for our state.	SO10
<b>Sender Name (Submission ID)</b> Bill Steele (15967)		
1064	5.2 million gallons of polluted, untreated water from the mine site and 11 million gallons of untreated seepage from the tailings pond will enter groundwater every year with no treatment whatsoever, and ultimately much of this water will end up in the Embarrass and Partridge Rivers. ... Moreover, the groundwater model used to obtain these numbers may be flawed so as to skew them to be unrealistically low.	WR058, WR060, WR070, WR167
1068	the SDEIS indicates that the NorthMet Project is to operate for only 20 years but water from the site may need to be treated for 500 years. If we consider a human generation to be 25 years, is one generation of mining employment worth condemning 20 generations to pollution?	WR035
1070	How can 500 years of waste water treatment be financed over such a period? ... I doubt that Polymet will exist 500 years from now.	FIN01
1073	provision must be made to protect Minnesota taxpayers from the expense of dealing with the abandoned mine and plant sites. How do you finance waste water treatment for 500 years? Regulators must obtain funds for long term waste water treatment and cleaning up failures of tailings management facilities up front.	FIN01, FIN05, FIN10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bill Steele (15967)		
1075	The SDEIS itself gives no indication about how centuries of waste water treatment and remediation of probable failures of tailings containment infrastructure will be financed. Clearly, the state of Minnesota must mandate establishment of a large fund for future environmental maintenance at the NorthMet site.	FIN01, FIN05, FIN08, FIN11
1076	Government regulators have an obligation to secure funding to protect Minnesota taxpayers.	FIN10
1080	The SDEIS says nothing about how Polymet will deal with unexpected problems when they arise. ... How will Polymet manage these emergency situations? ... The SDEIS is totally deficient by not spelling out plans for dealing with such contingencies.	PD22
1084	If ... the mine is approved, it should only be authorized with the establishment of a fund large enough to assure that Minnesota taxpayers will not be burdened with the enormous costs of remediation	FIN10
2015	Large ownership of Polymet by Glencore should itself be a red flag. Glencore and its many subsidiaries are notorious for a wide variety of egregious behavior including tax avoidance, violating UN embargoes of despotic regimes, rampant pollution by its mines, and even major human rights violations	PD23
<b>Sender Name (Submission ID)</b> Bill Thronson (54654)		
17970	I support Poly Met Mining and believe they will build and operate a mine that complies with all state and federal regulations. I have attended several of the public meetings and it's clear to me that PolyMet has been extremely patient and thorough in there due diligence. ... I feel the SDEIS lays the proper groundwork for developing an environmentally and economically sustainable project and I support it.	NEPA16
17971	I believe in the importance of buying locally. This mine will produce some metals not currently mined anywhere in the United States. This gives us a clear opportunity to have a positive impact on the economy, not only locally but nationally as well. In addition to the economic benefits, this will be done in an environmentally safe way and help diversify our economy on the ironrange.	SO10
17972	I am confident that impacts to the air, water or land will be minimal, and the land post-closure will be reclaimed to protect natural resources over the long term in compliance with the law.	FIN16, FIN17
<b>Sender Name (Submission ID)</b> Bill Wallace (9644)		
1360	The company says they have a plan to deal long-term with the water pollution and will be putting away money into a fund to address it. The easy solution is to triple or quadruple the amount of funding that the company "claims" needs to be set aside. It is certainly in the company's best interest to lowball the number needed so let's have them put in a much higher number that would cover all possible worst case scenarios. What we don't want to happen is for us to run out of money 40 years from now and be stuck with a company that may not even exist.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Billy Southwell (43142)		
14538	the SDEIS provides no meaningful consideration of alternative means to achieve the project Purpose and Need as required by law, it only looks at a No Action alternative and the same action with a smaller land exchange.	ALT21

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Billy Southwell (43142)		
14539	The Underground Mine Alternative is discarded, mostly as a result of an InfoMine model used to determine economic feasibility, for which there is no detail provided in the SDEIS. The SDEIS states that the underground mining alternative "would not offer substantial environmental or socioeconomic benefits" and was therefore discarded. However, in Appendix B, the co-lead agencies found that "compared to the proposed open pit mine, the underground mining alternative would offer some significant environmental benefits. . ." and that underground mining is "technically feasible."	ALT01
14540	The West Pit Backfill alternative is also discarded prematurely. Backfilling the East and Central Pit with Category 2 and 3 waste rock is considered both feasible and desirable and is part of the proposed action. The offered reason that backfilling the pit would "encumber" resources in violation of PolyMet's mineral leases is irrelevant, since these resources are currently encumbered by 696 feet of soil and rock.	ALT03
14541	Revise the SDEIS to provide details of the economic models used to simulate the costs of underground mining and its economic feasibility	ALT01
14542	Revise the SDEIS to eliminate assertions that the Underground Mining Alternative does not offer environmental benefits, since the co-lead agencies found that it would offer significant environmental benefits	ALT01
14543	Revise the SDEIS to include the Underground Mining Alternative as an alternative to the proposed action	ALT01
14544	Revise the SDEIS to include the West Pit Backfill Alternative as an alternative to the proposed action	ALT03
<b>Sender Name (Submission ID)</b> Bjorn K Monson (43043)		
12912	Sulfuric acid, the result of disruption of the sulfide containing rock and exosing it to water and air(oxygen.) This will poison the watershed. It is unlikely that this can be neutralized or contained in the short term, let alone for half a millennium.	WR001
17305	Although drainage from the PolyMet mine would flow to the St. Louis River, which already has adverse effects from acid drainage, allowing a permit for the PolyMet Mine would set a precedent, and likely accelerate permits for mines closer to the BWCA. Acid drainage from these mines would then drain into the boundary waters with disastrous effects.	PER07
<b>Sender Name (Submission ID)</b> Blake Romenesko (11614)		
2293	I also have huge concern for the wild rice and other aquatic plants that are making a recovery in these waters and elsewhere that this project affects.	WR057, WR077, WR180, WR193
2293	I also have huge concern for the wild rice and other aquatic plants that are making a recovery in these waters and elsewhere that this project affects.	VEG04, WR157
7348	I enjoy kayaking in the lower St. Louis River, and I often seen fisherman in the Spirit Lake area. ... I never would go fishing in that water due to pollution particularly from a century of ferrous mining... if this project follows through I am sure that the lower St. Louis will never be able to sustain healthy fishing and remove recreational activity.	LU06
7348	I enjoy kayaking in the lower St. Louis River, and I often seen fisherman in the Spirit Lake area. ... I never would go fishing in that water due to pollution particularly from a century of ferrous mining... if this project follows through I am sure that the lower St. Louis will never be able to sustain healthy fishing and remove recreational activity.	LU06
<b>Sender Name (Submission ID)</b> Blakely Fraasch (44379)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Blakely Fraasch (44379)		
10437	I realize that this mine could cause severe environmental damage with little pros to individuals (little jobs created, with the boom hitting only the corporation).	SO01
10440	[mine will provide] little economic impact for the state of Minnesota with a huge environmental impact to our land.	SO01
<b>Sender Name (Submission ID)</b> blayne johnson (57479)		
19517	I would hope people agree that Minnesota's Natural Resources and water quality is more important than pillaging a beautiful natural forest area for a few dollars and a lifetime of potential contamination.	SO01
<b>Sender Name (Submission ID)</b> Bob Amis (15289)		
431	there appear to be a number of deficiencies remaining in the document, including numerous unsupported assumptions and unsubstantiated, overly optimistic projections which, if uncorrected, will not adequately protect the region from an unacceptably high risk of air and water pollution.	AIR11, WR026, WR129
432	The SDEIS estimates ... a collection rate of over 99%. The SDEIS does not support this estimate by naming one tailings pile in Minnesota, or anywhere else, that has experienced such a high collection rate from pumps at the edge of an unlined tailings pile . It is my understanding that comparable real world experience is between 50% and 75% collection rates.The SDEIS does not consider the impact to water quality if the collection rate is lower than this extremely optimistic estimate.	PD08, WR018, WR023
433	I ask you to require the SDEIS to be revised to include real world data on collection rates for tailings piles of this type, and an analysis of water quality outcomes if the tailings pile collection rate is not what PolyMet claims.	PD07, WR018, WR023
434	water will flow along the bedrock, find the fractures, and then flow through those fractures ... much faster than the SDEIS assumes. Furthermore, in addition to the existing fractures, mine site blasting will occur ..., creating more fracturing in the bedrock. The impact of this increased bedrock fracturing is not contemplated in the SDEIS.	WR016, WR168
435	Therefore, I ask you to require the SDEIS to be revised to clearly analyze and explain the impact on surface and ground water if contaminated water from the mine site is transported through fractures in the bedrock.	WR012, WR168
<b>Sender Name (Submission ID)</b> Bob Bartlett (28003)		
14735	PolyMet must be able to prove, guarantee that their mine will not affect the quality of wetlands and water in this area. They cannot do this as of yet.	WET24
<b>Sender Name (Submission ID)</b> Bob Beutel (44578)		
11809	20 years of profit and a handful of jobs are not justification for ruination of our natural jewels.	SO01
11813	The cost of failure is cataclysmic: All of the Boundary Waters and Quetico from Basswood to Crane Lake, and Voyageurs National Park, Rainy River, and Lake of the Woods would be rendered sterile – no fish, no vegetation, no clear water, no safe swimming, nothing	GEN03
<b>Sender Name (Submission ID)</b> Bob Brezinski (54473)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bob Brezinski (54473)		
17467	I strongly object to any possibility that our citizens be left with any financial obligation to cover the cost of keeping our lakes, streams as well as all water safe from pollution. Facing the possibility of spending taxpayer money for 500 plus years of guarding our clean water from pollution of this project is outrageous.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Bob Carlson (18089)		
3217	The areas downstream of the PolyMet Project have such a tiny bit of wild rice that I don't think it's really an issue. There's not a bed of rice down there that's large enough to harvest any rice out of, and -- and another thing to add in that tiny bit of rice down is something that really went haywire with the wild rice, we've got a lot of lakes in this area that historically didn't have rice.	WR161
3218	So it makes me wonder if the DNR and maybe our legislators shouldn't look at raising that 10-part-per-million sulfate level because rice is growing pretty darn good right now where that -- where the levels are higher.	PER10
3219	I guess the last thing I'd like to say is that the band members in the 1854 Treaty area have concerns about wild rice, but I think their concerns are really unfounded due to all these other lakes that have been planted that historically didn't have rice.	WR161
13385	I think that concerns about wild rice with this PolyMet Project are really overblown. I've been picking wild rice since 1963, and I've picked most of St. Louis County and adjoining counties, and downstream of PolyMet, I'm completely unaware of any significant wild rice stands. So even if they did release sulfites that were damaging to wild rice, there isn't any wild rice there to hurt, so I think it's an insignificant thing to think about.	WR161
13389	if wild rice was harmed by some sulfides released from the PolyMet Project, they could quite easily mitigate that by purchasing some ponds and planting wild rice. The United States Forest Service and the State of Minnesota have planted wild rice in the area with very good success.	WR161
13390	I think the wild rice concerns are really insignificant and should not be a factor in this draft EIS.	WR161
13461	They've got Hay Lake listed as a control site, you know, for comparison to the PolyMet Project. I think that's a poor, poor lake for a number of reasons.	WR075
<b>Sender Name (Submission ID)</b> Bob Hale (44617)		
12083	My concern with granting permits to the mining companies pertains to the water quality of the mines after the metals have been exhausted.	WR195
12084	I do not see adequate funds being required to execute a plan B in case all the currently mentioned mitigation fails	FIN05, FIN08
15904	there is a larger than prudent risk of contamination. I don't see specified, who will monitor these so called bedrock walls that would contain pollutants.	PD09, PD35
<b>Sender Name (Submission ID)</b> Bob Ilg (45848)		
13069	Please do not let SDEIS do any mining in the Superior National Forest. Please save our wetlands, bogs, and swamps from being destroyed by pollution due to open-pit mines. We do not want contamination of ground water or our lakes and rivers. Once the water is polluted it will never be the same. Clean water is precious to every form of life.	WR111, WR115
<b>Sender Name (Submission ID)</b> Bob Lenzmeier (44829)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bob Lenzmeier (44829)		
10600	Twenty years of jobs with the result being hundreds of years of polluted water.	SO01
10602	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin...Any project that harms the water supply should be turned down without question.	WR111, WR115
<b>Sender Name (Submission ID)</b> Bob Shannon (47660)		
7828	I have concern that substantial conflicting short-term political and economic interests within the State of Minnesota and the agencies who are conducting the review of this document may compromise the state's ability to provide a rigorous and impartial review of the SDEIS.	NEPA18
7854	The SDEIS provides inadequate evidence that levels of mercury in waters in the 1854 ceded territories will not lead to elevated levels of mercury in fish thus depriving tribal entities of edible fish resources.	MERC24
7857	The SDEIS provides inadequate evidence that wild rice will not be impacted by increases in sulfate levels in waters in the 1854 ceded territories.	VEG04, WR159
7858	Recent action by EPA with regard to limiting (i.e., rolling back) seasonal variances to sulfate standards...should be directly addressed in an EIS.	WR153
7861	The proposed plan provides no credible assurance that any legal or business entity can be relied upon to maintain [remedial] engineering controls for many centuries after cessation of mining activity at the site.	PD24
7865	It is known that problematic measurements of input parameters [were] used for this SDEIS (e.g., critical measurements of water flow). There is considerable and reasonable doubt that site conditions can be considered as stable, especially over [a] very long period of time.	WR003
7870	Beyond the assurances of interested parties, what assurance is there that input parameters and associated estimates of uncertainty are robust, accurate, and unbiased? Would independent measurements yield equivalent values? Have realistic estimates of worst-case assumptions been evaluated?	WR071, WR072, WR189, WR202
7872	What empirical evidence is available that models used will provide robust and defensible estimates for output parameters (including uncertainty) for predictions made for, say, 1 year, 5 years, or 20 years, let alone 500 years?	WR189
7874	Mercury modeling has been deficient: See concerns listed in Appendix C, Great Lakes Indian Fish and Wildlife Commission (GLIFWC) Mercury Section, comments 1-15.	MERC13
<b>Sender Name (Submission ID)</b> Bob Tammen (18090)		
3220	I think it's time [the mining companies] started cleaning up their mine sites and quit granting variances.	PER06
3221	We're going to be trapped in this boom-and-bust economy until we finally accept that we are a talented people up here and we're going to have to build our economy on the talents of our people instead of on stripping our assets, which are going to be shipped overseas, they aren't going to be building windmills in our backyard.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Bob Tammen (18090)	
9273	It has been my experience in the industry that acid draining from a mine is referred to as Acid Mine Drainage. Industry efforts to euphemize the term to Acid Rock Drainage is sadly unprofessional and should be corrected in the glossary and in the SDEIS. 4-165 "The Plant Site is located north of the Laurention Divide... Misprint? The plant is South of the divide. See map. 4-376 Last paragraph. Heal should be heel. 5-5 "located in...Mesabi Iron Range" The mine is located in the Duluth Complex in the Superior National Forest. Once again, the SDEIS deserves an EU-3. 6-9 6.2.2.1.6 Essar...begin operation in 2014. Essar will not begin operation in 2014. Update SDEIS. 6-7 Table 6.2-1 Mesaba Energy Project. The IRRRB has granted Mesaba Energy an option to purchase land near Hibbing for a gas power plant. Update table. 6-1 reasonably foreseeable. The impacts of developing a 10 billion ton ore body as described by geologists in Minnesota should be evaluated as reasonably foreseeable.	EDIT01
9274	ES-10 "uninterrupted operation" There is no history or probability of uninterrupted mining operations in Minnesota. 5-5 "waste rock is predicted to average 0.15 percent sulfide" From the Northern Miner January 14, 2008 authorized reprint. "Waste rock...can have up to 6% sulphur content."	PD30
9283	ES-31 PolyMet. Several documents refer to PolyMet and Poly Met (Two words). There must be a reason for having two different legal entities. The SDEIS should explain the difference and perhaps declare which will get dividends and which will have environmental cleanup liability.	FIN01
9286	ES-40 Federal, state, and local taxes. The SDEIS does not quantify rebates traditionally given to the mining industry. Our history of rebates to the taconite industry should be documented and the probability of rebates to the sulfide mining industry should be acknowledged.	SO04
9287	ES-41 "There is no legal access to the federal lands via land,... The SDEIS should acknowledge that the mining industry has the power to prevent American citizens from accessing Superior National Forest land and should resist efforts to give the industry even more power by facilitating a sulfide mining operation in Minnesota.	PER35
9289	ES-41 Cumulative Effects. Respected geologists have estimated that the Duluth Complex is a 10 billion ton ore body and have predicted with great certainty that it will be developed. Being the State of Minnesota has been able to estimate the cumulative benefits for school trust funds, the State should also be able to give a reasonable estimate of the square miles of pits, waste dumps, and tailings ponds that will be created in our water rich environment by the processing of our sulfide ore.	CU04, PD30
9291	1-11 Purpose and Need. There is little economic evidence for proposing mining for purposes of economic development. If you google "world class ore body" you'll probably get over 2 million hits. There's a lot of information about world class ore bodies. If you search for thriving mining communities in conjunction with those ore bodies, your search will probably be fruitless. Mining no longer creates healthy communities.	NEPA01
9292	Endocrine disruptors should be evaluated by the SDEIS. Several metals are endocrine disruptors and the synergistic and cumulative impacts should be evaluated.	HU01
9298	4-95 Tailings Basin. Discussion of tailings storage should include an evaluation of the 1,000' crack in the Hibtac dike in February of 2012 and possible applicability to understanding of Polymet's proposed tailing storage plan. 5-113 Bedrock Groundwater. SDEIS should disclose that exploratory drillings do not have to be sealed for 10 years and the consequences in ubiquitous briny water formations.	GT05, WR023, WR078
9300	4-371 "higher-sulfur waste rock" Percent sulfur of the Dunka waste rock that was buried in LTVSMC tailings should be disclosed.	PD10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bob Tammen (18090)	
9301	5-93 "proximity of wells to mine pits" Discussion of water resources and mining should include the problems the City of Hibbing had with one of its wells and the proximity of that well to Hibtac which was reluctant to accept responsibility for the problem. Discussion might appropriately be moved to socioeconomic. 7-12 Unavoidable Adverse Effects. The mining industry is stripping Minnesota's mineral assets. That unavoidable effect should be quantified by the SDEIS and a reasonable estimate made of the long term financial benefit of leaving the Superior National Forest intact for future generations. 7-10 irreversible loss of ore. The November 2013 Minnesota Mining Tax Guide describes ore as a wasting asset and allows a percentage depletion allowance for the reduction in reserves. The SDEIS should give us an estimation of the value of Polymet's ore asset so that the public could evaluate the benefits of leaving that ore in the ground. 6-14 "a portion of Highway 53...would need to be relocated". The SDEIS should disclose that Minnesota taxpayers will pay to move the highway for Cliffs Natural Resources and that it would be reasonable to expect unanticipated taxpayer costs for Poly Met. 5-503 Operations. IMPLAN discussion does not address the Minnesota policy of rebating taxes to the mining industry. Disclose rebates.	SO04
9302	6-16 cumulative effects on groundwater. NRRI TR 2005/01 states that over 2,000 exploratory holes have been drilled in the Duluth Complex. Geological maps show numerous faults in the vicinity of Polymet's operations. The possibility for cumulative effects in an area with saline groundwater is obvious. 5-155 "oxidation of the pit walls" Reference should be made to the Lone Tree flooded pit in Nevada and the surface concentration of low Ph water.	WR010, WR023
9303	5-532 Lime. The SDEIS should analyze the consequences of increasing the amount of calcium in waters that might be invaded by zebra mussels.	AQ17
9304	5-525 Mishandling...discharge into the environment. Even proper handling of ANFO results in the discharge of ultra-fine particles into the environment. SDEIS should analyze fine particle discharge from blasting.	AIR10
9305	5-506 Public Services and Facilities. New schools are being proposed even if sulfide mining is not permitted.	NEPA15
10601	Wetlands Action Group requests that a cost-benefit analysis be done that recognizes ore removal as asset depletion.	SO04
10604	We also request that the EIS analyzes the synergistic effects of discharging mineral based endocrine disruptors from mining operations into waters that already have other endocrine disruptors	HU02
13438	The [mining] industry regularly requests variances to Minnesota's discharge standards, and the State of Minnesota regularly grants those variances. ... There is a variance request for PolyMet's tailings pond which is leaking approximately 2.9 million gallons a day as we speak. If we have stringent environmental regulations in Minnesota, why are these tailings ponds constantly leaking.	PER06
<b>Sender Name (Submission ID)</b>	Bob Tanner (18377)	
2828	I don't think the EIS treats the economic issues thoroughly.	SO04
2834	Minnesota has a history of being unable to regulate the mining industry.	NEPA15
14706	see that we're getting millions in taxes. But that EIS doesn't disclose that we're giving \$220 million back to the mining companies. Over the last 20 years they clawed back \$220 million of our tax dollars.	SO04
14707	What is it going to cost us to move that highway (Highway 53)? The mining company wants the highway moved. We're going to pay. They have enough political clout to get an agreement that we're going to move that highway.	PD36

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bob Wirtanen (46536)		
9129	Waters Resources are portrayed as capturing greater than 90% of the water for treatment. This should be reset to 100%.	WR018
9130	Mercury loading levels to a receiving water resource should NEVER be allowed to increase.(example ...Table 1 Page 53...the Embarrass River)	MERC23
9131	Aluminum and lead evaluation criteria should NEVER be allowed to exceed applicable water quality evaluation standards	WR082
<b>Sender Name (Submission ID)</b> Bobbi Galush (4)		
15	Reverse osmosis is the best technology to keep the water supplies clean.	WR190
<b>Sender Name (Submission ID)</b> Bois Forte Band (42979)		
2974	The Area of Potential Effect (APE) for cultural resources divided the project into two separate sections surrounding the proposed mine site and the proposed plant site should be revised....An APE that encompasses the Mine and Plant sites and surrounding area affected by operations would better describe the undertaking for cultural resource investigations.	COOP01, CR02
2975	Mesabe Widjiu is correctly identified as a sacred landform, but needs to be considered in its entirety (see attached map as an example). The segment encountered within the project area is small, but integral to the property.Adverse affects to any portion impact the entire feature.	COOP01, CR02, CR05
2976	The Beaver Bay to Lake Vermilion Trail requires further clarification. ...Additional fieldwork should be conducted in the spring or fall when ephemeral features such as foot trails are less easily concealed by vegetation and more easily discerned.	COOP01, CR05
2977	The Bois Forte THPO is skeptical of the co-leads claim that there will be no effect to the Spring Lake Mine Sugarbush from the proposed NorthMet Project. Indirect effects through dust deposition and unauthorized collection are anticipated since the Sugarbush is situated immediately adjacent to the proposed plant site.	AIR04, COOP01, WR151
2978	the three properties [Mesabe Widjiu, Beaver Bay to Lake Vermillion Trial, and Spring Lake Mine Sugarbush] would benefit from additional investigation; the sugarbush has not been formally recorded, the trail has been adequately documented within the SNF proposed land exchange, but requires additional survey in the upland sections of the project area and Mesabe Widjiu should be considered in its entirety. Finally, all three must be formally nominated to the National Register of Historic Places.	COOP01, CR02, CR05
2979	Acknowledgement by the SDEIS authors that adjacent habitat is available signifies a lack of analytical rigor in effects assessment of wholesale population displacement in response to mining activity....The SDEIS fails to assess cumulative effects to wildlife population changes, not only in the project area, but the entire region. The co-lead agencies should document how habitat destruction and concomitant wildlife migration will affect local and regional ecology.	COOP01, WI05
2980	Cooperating agencies' concerns with cumulative effects remain valid and germane, but have yet to be addressed by the Lead Agencies.	COOP01, CU12
3097	A 216,300 acres area bounded by the St Louis River, Lake Superior, Lake Vermilion and the Beaver Bay to Vermilion Trail better describes cultural resources to be effected by the NorthMet project..	COOP01, CR04
<b>Sender Name (Submission ID)</b> Bonnie (45164)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Bonnie (45164)	
8517	I believe it is not worth the risk to our water resources so I am opposed to the PolyMet proposal.	WR195
<b>Sender Name (Submission ID)</b>	Bonnie DeClercq (10748)	
605	Water needing to be treated for 200-500 years is just too long. What an awful legacy to leave future generations. They need to have a better process before I would be in favor of this mining.	PD03
<b>Sender Name (Submission ID)</b>	Bonnie Morris (39523)	
13543	Please think of the generations of the First People's who lived lightly on this land.	CU11
13544	Please consider the significant environmental impact that this mine would have to the treasure that is our Northern Minnesota-- the wilderness, the pristine waters of the BWCA, to the Great Lake of Superior.	WR111
13545	Consider how the unintended consequences of what is projected but not known about how this mine's construction and operations could lead to impacts that would affect this area for generations to come.	PD01
<b>Sender Name (Submission ID)</b>	Bonnie Nelson (18279)	
4094	For the Land Exchange, I am concerned that we are taking land that is currently in a natural state and turning it into or exchanging it into land that's going to be mining. It would make more sense to take mining land and turn it into a natural state in exchange, so that the two would have an equal use exchange.	LU01
<b>Sender Name (Submission ID)</b>	Bonnie Peterson (45234)	
11199	Who really believes that polluted leach water would be monitored and treated for hundreds of years after the mining ends? We have no mechanism for long term treatment on that scale.	WR035, WR090
11201	The land swap should be denied, and mining company should not be allowed to strip mine and expose sulfide waste. Mining company should instead mine underground, replacing waste materials in mined out tunnels.	ALT01
11203	20 years of jobs is a bad trade for hundreds of years of problems.	SO01
11204	If the strip mine is to be allowed, regulators must keep in mind that there are no materials that will hold up for hundreds of years. Waste pit liners will degrade over time, and leak. The project must include at least one, and probably more liner replacements.	PD15
11279	Please reject the land swap that would enable sulfide mining in the arrowhead region of Minnesota. Sulfide mining and resultant fragmentation of our wild areas would be a permanent loss for Americans.	WI02
15906	Please reject the land swap that would enable sulfide mining in the arrowhead region of Minnesota. Sulfide mining and resultant fragmentation of our wild areas would be a permanent loss for Americans.	WI02
<b>Sender Name (Submission ID)</b>	Bonnie Shallbetter (45677)	

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bonnie Shallbetter (45677)	
12853	The shortsighted 20 years of jobs versus 500 years of pollution is not the legacy we should be leaving for our children and the generations to come.	SO01
<b>Sender Name (Submission ID)</b>	Brad Borrman (36887)	
15871	I have seen the damage done by other mining projects and do not want to jeopardize the clean water, fishing, forests, and tourism industry we currently have in place.	GEN03, WR195
<b>Sender Name (Submission ID)</b>	Brad Clifford (19530)	
13450	The PolyMet SDEIS doesn't study impacts that could affect mercury contamination of fish in the St. Louis River Estuary, let alone impacts to habitat and tribal resources in the region.	AQ28
13451	A cumulative effect analysis of mining should be done before the PolyMet SDEIS gets finalized.	CU18
18354	How do we trust this economic opportunity? And how do we assure ourselves that we can see sustainability, we can see an economic balance, sort of the idea of an "economic equilibrium," and Dr. Gram Nash's theory... where values were assigned to each component, the land exchanged, the reclamation, the actual value of the minerals in the ground and the cost to get them up, and the tax revenue that the agencies and state can levy to keep it balanced	FIN16
18357	if the questions aren't answered and mitigation and rationalization and the science isn't proven, that's the problem that we have. Who can say honestly and clearly that this science has been proven? When Mesabi Nugget tried to prove their technology, they did a very, very small equation, and it took several years for that to be proven, before they went forward to the next step. And if we skip any step and try to argue that our concerns are dismissive, then the deliberative democratic process gets thwarted.	NEPA09
18361	And so suddenly somebody's assertion isn't as important as the individual that has more money and can buy it, does it? So, when we look at our mineral rights in our forest, they may not be worth what some people believe them to be worth. And if they are, then show us what the math is. And if they can do that, then people will buy into it. But if they can't, and they can't deliver, then remediation, for example, in the river, if it gets to certain levels -- and how do we determine those levels? At .2 on the map, and down at the rice patties it is like .5, and so when they say there is a problem, they are going to go out and build management systems and waste management expansions. ... And so how much damage can happen to the wild rice and the habitat? ... So, unless we can truly understand what the economies are and what the cost benefit is, and making sure that a tax revenue is there to be able to put and build the trust, as well as the bonding and the sureties that they put their money where their mouth is. If I allow you to make a dollar, and I'm going to charge you 25 cents to assure that we are going to have recovery and reclamation, why would you be upset?	SO02
<b>Sender Name (Submission ID)</b>	Brad Davidson (44755)	
7481	The potential impacts to the watersheds and the other... resources ... cannot be taken lightly and trusted to the normal economies of mining.	SO01
7485	What kind of extreme weather events are considered?	GT15
7486	Who would maintain containment in perpetuity?	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Brad Davidson (44755)	
14790	What if we made a Return To Initial State a requirement for tailings? I see no better standard to set than one of returning the sulfide to an identically sequestered state as that of the pre-mining condition. The goal is lofty but given the realities of past metal sulfide mining no current solution exists and no mining should be allowed until a method is demonstrated that does much more to protect existing resources.	ALT16
<b>Sender Name (Submission ID)</b>	Brad K (43090)	
14801	I believe [the PolyMet Mining project] will be very positive for Minnesota economic development and provide much needed natural resources for our region and nation and others around the globe. It will provide needed jobs so more people can pursue the American dream.	SO10
<b>Sender Name (Submission ID)</b>	Brad Little (38873)	
5380	A health impact assessment should be standard for projects like this that have the potential to affect both human and environmental health across the Arrowhead.	HU01
16867	20 years of copper reserves is not worth jeopardizing ten percent of the world's fresh water in the Lake Superior watershed.	SO01
<b>Sender Name (Submission ID)</b>	Brad Meier (42878)	
9012	Minnesota has a proud mining tradition that has created thousands of jobs and billions of dollars in economic activity for our residents. The Northmet project is a vital continuation of that heritage and will provide positive impacts not only for Northeastern Minnesota, but across the state as well.	NEPA01
9012	Minnesota has a proud mining tradition that has created thousands of jobs and billions of dollars in economic activity for our residents. The Northmet project is a vital continuation of that heritage and will provide positive impacts not only for Northeastern Minnesota, but across the state as well.	NEPA01
9015	We urge the DNR to grant permission to Poly Met to build this mine confident that the DNR will adhere to the highest environmental standards necessary to protect Northern Minnesota's natural beauty and be strict in its oversight of Polymet's operation.	PER34
9015	We urge the DNR to grant permission to Poly Met to build this mine confident that the DNR will adhere to the highest environmental standards necessary to protect Northern Minnesota's natural beauty and be strict in its oversight of Polymet's operation.	PER34
<b>Sender Name (Submission ID)</b>	Brad Sagen (42928)	
12172	the SDEIS is legally and technically flawed because it eliminated viable alternatives from its analysis, failed to adequately the cumulative impacts associate with this project, and insufficiently analyzed the environmental consequences to numerous resources such as water quality, wildlife, wetlands and air quality.	CU03
12175	NEPA regulations and case law have determined that agencies cannot eliminate (an underground mining) alternative because they conclude this alternative, is not considered a reasonable alternative because it would not be economically viable...The agencies eliminated an underground mining alternative because they determined this alternative, "is not considered to be a reasonable alternative because it would not be economically viable and therefore it would also not meet the Purpose and Need (MDNR et al. 2013a)." (SDEIS 3.2.4.1)	ALT06

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Brad Sagen (42928)	
12205	Even if economic viability was an allowed reason for rejection of an alternative, the scant analysis of the costs of underground mining does not meet NEPA requirements of review...A robust analysis of costs of underground mining would have set forth a history of metal prices, determined what price makes underground mining viable, analyzed metal price projections in the past and projected metal prices over the next twenty (20) years, and then determined the economic viability of underground mining.	ALT06
12206	Adaptive management is itself an alternative that must be analyzed in a revision of the SDEIS, and on which the public must have a meaningful opportunity to comment.	ALT18
12351	The Scope of the Cumulative Impacts Analysis is Inadequate Because the SDEIS Arbitrarily Excludes Projects that Are Not in Permitting Stage and Fails to Account for Full Plant Operation...The cumulative impacts analysis should be expanded to include projects such as Twin Metals that are in the pre-feasibility stage, and should include all potential mining projects that may utilize approximately more of the existing NorthMet processing facility capacity.	CU02
12352	the SDEIS omitted mercury from its modeling and transport analysis for water quality impacts. Specifically, the SDEIS states: “Mercury was not included in the GoldSim model, as insufficient data and a general lack of definitive understanding of mercury dynamics prevented modeling mercury like the other solutes.”(SDEIS 5.2.2.3.4) This omission of data is especially troubling because the water bodies impacted by the NorthMet Project do not comply with mercury water quality standards...Mercury must be added to SDEIS modeling and transport analysis for water quality impacts	MERC13, MERC16
12355	The SDEIS map that appears as Figure 4.2.3-1 appears to have been deliberately falsified to reduce the size of the 100 Mile Swamp and avoid the issue of whether groundwater from the mine could drain into the Rainy River Basin as well as the Lake Superior Basin. A comparative government map of the swamp area, available at <a href="http://www.nationalatlas.gov/streamer">www.nationalatlas.gov/streamer</a> , shows the swamp to be considerably larger and to extend further east and also north...The possibility of groundwater drainage to the Rainy River Basin should be acknowledged and procedures established for monitoring that possibility.	WET19, WR080
12356	The DEIS is Inadequate Because it Does Not Include the Required Financial Assurance Information...Some mine owners have defaulted on their environmental liabilities associated with their mines, making the cleanup costs borne mostly by taxpayers...The average cost of addressing a mining site under the Superfund program is approximately \$22 million per site.	FIN01, FIN05
12358	The SDEIS must provide reasonable estimate(s) of how long post-closure treatments will be required so that the public may evaluate assess the potential effects and the financial risks of the project.	FIN05, WR036
12359	Toxic Waste Projections in the SDEIS Demonstrate That Water Quality Standards Will Be Exceeded for an Indefinite Future.	WR035
12360	SDEIS post closure reclamation plans rely heavily on adaptive management ...The SDEIS misuses the concept and guidance regarding adaptive management so that it fails to identify the actual contingency measures being considered for possible use, and the circumstances under which they would most likely be employed. It is impossible to estimate financial assurance requirements under these conditions.	FIN05
12364	A revised SDEIS must be prepared to provide supporting evidence that the land exchange serves the public interest. The revised SDEIS must document how the proposal both meets USFS land exchange objectives and fulfils USFS regulations regarding protection of forest lands. Any claim that the project consolidates mineral and surface rights should be removed.	NEPA04
12366	The Forest Service has the duty to protect the public’s surface lands for forests, water, and multiple uses under NFMA, the Organic Act, and the Property Clause	LAN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Brad Sagen (42928)	
12369	Failure to Meet USFS Land Exchange Objectives.....Four of the five tracts ... fail to meet the Forest Service objective of reuniting mineral and surface rights. (SDEIS 3-163). Future mining on these lands cannot be ruled out as possible, and thus the public could be acquiring lands that carry the risk of future land-use conflicts. Tract 1, the Hay Lake parcel, has “moderate” risk for future mineral conflict because of the presence of “potential surficial aggregate resources in the far northeastern corner of the tract” (SDEIS 5-586).	LAN04
12372	The Forest Service has the duty to protect the public’s surface lands for forests, water, and multiple uses under NFMA	PER35
14363	The requirement that agencies consider alternatives is critical to NEPA’s implementation...The SDEIS identifies and considers three alternatives: (1) the “no action” alternative (SDEIS 3.2.3.2); (2) the underground mine alternative (SDEIS 3.2.4.1); and (3) the west pit backfill Alternative (SDEIS 3.2.4.2) None of the alternatives evaluated in the SDEIS directly involved different mining techniques or contemplated a different scale or magnitude of mining.	NEPA01
14366	Each of the rationales advanced by DNR and the Corps are legally deficient reasons to eliminate underground mining or reduced scale as alternatives that the SDEIS should have evaluated. Most importantly, the underground mine alternative would fulfill one of the major purposes of the Project. “To eliminate the conflict between PolyMet’s desire to surface mine and the USFS ownership and management of NFS lands, by exchanging federal lands for non-federal lands that have equal or greater value.” (SDEIS 1.3.2.1) With an underground mine, there would be no need for the proposed land exchange.	ALT01, ALT02, ALT06
14367	A revised SDEIS should be prepared to address the substantial environmental benefits provided by an underground mine alternative, including but not limited to preserving forest lands and other natural resources such as wetlands.	ALT01
14368	MN Admin. Code § 4410.2300(g) (agency may exclude an alternative if “it would likely not have any significant environmental benefit compared to the Project as proposed”)...A project of reduced scale would obviously have immense environmental benefits. Therefore, the agencies should have considered a smaller project alternative and compared the environmental impacts of the proposed project with this reduced scale alternative.	ALT06
14372	SDEIS’ analysis of cumulative impacts must expand beyond “general statements about possible effects and some risk” to provide the required “hard look.”...“A proper consideration of the cumulative impacts of a project requires some quantified or detailed information; general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.” Klamath-Siskiyou Wildlands Ctr., 387 F.3d at 993 (citations omitted).	CU14
14379	Information on mercury discharge to rivers, potential water quality standard violations, and the impacts on water quality if water collection and treatment systems end prematurely are all missing from the document. In fact, the SDEIS seems to systematically omit any information that might lead a reader to question whether legal standards will be met. These omissions result in an SDEIS that is fatally flawed.	WR038, WR060, WR125, WR158, WR184
14380	The SDEIS must be rejected until mercury is modeled by GOLDSIM for both the Embarrass and Partridge Rivers, or an alternative evaluation of the potential for increased loading of mercury to the Embarrass and Partridge rivers and related wetlands based upon the best available science is provided.	MERC13
14383	Estimates of increased loading of mercury to the Partridge and Embarrass rivers (and extending to the St. Louis River) must include mercury from air deposition, from leaching to groundwater, and from the transfer of Colby Lake water.	MERC10
14390	The Clean Water Act Section 303(d) and 40CFR122 do not permit the tradeoffs proposed in the SDEIS (5.2.2.3.4) in which one water body (the Embarrass River) that already has increased mercury suffers increases in mercury because of a proposal to offset the increase somewhere else. Increased mercury cannot be allowed (Embarrass River) based on a projected mercury decrease (Partridge River).	PER11

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Brad Sagen (42928)	
14401	...new or increased mercury discharges to waters that do not meet water quality standards are forbidden, no matter how small. Minn. R. 7052.0300(2)...Project Area lakes (Sabin/Wynne, Embarrass, Esquagama, and Colby) must adhere to Minnesota regulations forbidding increased mercury discharges... to waters that do not meet water quality standards.	PER11
14404	Since most mercury methylation occurs in wetlands, the release of mercury to wetlands may be more problematic than direct releases to rivers or lakes. The concurrent addition of sulfates and the likelihood of water level fluctuations in wetlands contribute to the problem...Project Area wetlands must adhere to Minnesota regulations forbidding increased mercury discharges, no matter how small, to waters that do not meet water quality standards. Minn. R. 7052.0300(2); and maintaining the quality of wetlands...Minn. R. 7050.186(1).	MERC09
14407	Failure to Include a Draft Reclamation Plan ... for the Project is a Fatal Flaw in the SDEIS...The SDEIS analysis should have gone farther and shown how the reclamation activities would actually work to keep water quality standards at predicted levels.	PD22
14409	the Partridge River through the East Pit/Category 2/3 Flowpath is predicted to violate water quality standards at the P90 level for both aluminum and cobalt...Regarding the West pit overflow, the SDEIS should disclose that at the P90 level, groundwater in the West Pit flowpath is predicted to violate the surface water quality standard for cobalt (by a factor of 5) and lead at the point of discharge to the river...Although the predicted average discharge from the WWTF would add significant dilution capacity at that point, it is unclear what the discharge regime will be in order to protect seasonal variation in the river flow.	WR177
14410	The SDEIS should address issues raised by...recent scientific reports showing a higher likelihood of unpredicted contamination in projects that have the potential to create acid rock drainage and that are situated near ground or surface waters.	WR023
14417	Waste treatment in the NorthMet Project will be perpetual, as “perpetual” is defined in standard dictionaries to include, “lasting for an indefinitely long time.”...According to Minnesota Rules, Post-Closure Treatment Cannot Continue Indefinitely...NorthMet cannot be approved until proponents can demonstrate the mining area will be closed according to rule and will be maintenance free.	PER04
14422	NorthMet financial assurance must provide for unforeseen but potentially identifiable uncertainties...[such as] climate change where increased variability in weather has led to ‘500 year’ devastating events such as excess rainfall occurring several times in a single decade. Uncertainties concerning the stability of tailings dam (basin) construction and waste rock liner performance, as well as earthquake potential must be provided for.	FIN05
14432	USFS wetland losses from the [land] exchange would be significant, in quality and function. Two of the non-federal tracts proposed for acquisition are located outside the Lake Superior Watershed. At least three are outside the St. Louis River Watershed. The result would be an actual loss of contributing wetlands to an important watershed. Although proposed candidate lands bring wetland values, they are in different watersheds and are adding currently value. The result is a net loss of wetland function values.	WET14, WET15
14433	“USFS policy (Forest Service Handbook 5409.13 § 33.43c) provides that the following list of three conditions satisfy the requirements of EOs 11990 and 11988: 1. The value of the wetlands or floodplains for properties received and conveyed is equal (balancing test) and the land exchange is in the public interest” (SDEIS I-15). While wetland acreage in the exchange may be equal, the value of the wetlands is not. The public is losing 100 year old peatlands for fragmented wetlands of other types	WET14
14446	“Adaptive Management” is nowhere defined in the SDEIS. The SDEIS identifies situations that may require adaptive responses. It does not typically specify the situation specific circumstances requiring a response and nowhere does it identify the specific response and link it to the conditions requiring the response (as required by USFS regulations and recommended in CEQ guidance)...This misuse of adaptive management must be corrected and its erroneous proposals modified or withdrawn	PD22

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Brad Sagen (42928)		
14448	The SDEIS should be rewritten to follow the CEQ guidance concerning adaptive management, including the identification of specific mitigation alternatives and the circumstances under which they would be used. Adaptive Management itself constitutes an alternative and should be identified and analyzed as a major alternative in the SDEIS	PD22
<b>Sender Name (Submission ID)</b> bradford c. (43249)		
15798	For a few jobs created during the brief period such mining would be around it will leave in its wake hundreds of years of toxic waste and destruction. We do not consider this a fair trade off - not even close.	SO01
15802	This type of mining has a proven track record of being destructive to the environment and communities - without exception! This fact alone should dictate a flat denial of permitting for such mining in Minnesota. The u.s. e.p.a. has shown this industry to be the largest polluter in our nation. There is no doubt this type of mining if allowed in the area proposed would have devastating negative effects on the wilderness, the local communities, water supplies, wetlands and property values (ours included).	PER35
<b>Sender Name (Submission ID)</b> Brandenburg Gallery (46103)		
10810	The PolyMet Environmental Impact Study is hypothetical. Even proven first methods can result in environmental disaster given the event of natural earth movement, equipment failure, or human error.	GT15
10811	M.I.T. researchers, when asked their opinion on whether or not copper-nickel sulfide mining should be permitted in northeastern Minnesota replied: "In a water table as fragile and valuable as the one in northeastern Minnesota, you just don't do it."	WR195
10813	Should companies be allowed to put at great risk the health and welfare of ecosystems, people, and wildlife? No, because individual citizens are not permitted to. If a terrorist were to come and poison our water supply we would go to war over it.	WI01
10814	Minnesota is defined by its lakes and quality of clean water. The shortage of clean water in the world is becoming increasingly severe and large scale. Unlike other resources, there is no substitute for clean water.	WR195
10816	I am saddened to think that Minnesota even considers permitting copper-nickel sulfide mining. Minnesota ought to first make mandatory the recycling of all metals.	PER35
<b>Sender Name (Submission ID)</b> Brandon (44581)		
11818	The clean up costs will far outweigh the costs of running this mine for only 20 years.	SO01
<b>Sender Name (Submission ID)</b> Brandon Swann (11628)		
3315	The PolyMet SDEIS is still inadequate. It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	HU04, WR041
3316	The PolyMet SDEIS is still inadequate. It doesn't explore the alternatives that could reduce PolyMet's destruction of wetlands.	ALT13
3317	The PolyMet SDEIS is still inadequate. It doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	MERC02, MERC10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Brandon Swann (11628)		
3318	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin.	WET24
3319	Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	AQ05, WR107, WR108, WR156, WR158
3321	PolyMet makes a lot of rosy predictions, but the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters “would continue in perpetuity”.	PD03, WR115, WR195
7415	the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters “would continue in perpetuity”. Please reject the PolyMet SDIES and deny permits that would allow the open-pit sulfide mine to harm Minnesota’s fresh water for centuries, if not forever.	PER04
<b>Sender Name (Submission ID)</b> Breawwna Wunder (19513)		
13270	The SDEIS is insufficient and should not be approved. It does not provide adequate information about the water treatment. How will up to five centuries of water treatment be paid for? No details are provided as to how the centuries of operation, maintenance, monitoring and reconstruction of water treatment facilities will be paid for.	FIN01, FIN05, FIN08, FIN11
13273	Claims in the SDEIS that mercury and sulfate pollution will decrease in nearby waterways as a result of mining are dependent in large part on operation of water treatment systems that are not detailed. To ensure protection for future generations, we need a detailed report that guarantees the protection of our waterways.	PD03
<b>Sender Name (Submission ID)</b> Brenda Adams (16912)		
11019	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won’t end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Brenda Beebe (22188)		
3351	The cost to the taxpayers of this state will be unthinkable, and the costs will be on the taxpayers because corporations always externalize such costs. No reasonable person can think that any corporation will live up to the responsibility of paying for that kind of cleanup, and that is just the financial cost.	FIN01, FIN10
3434	The cost to the taxpayers of this state will be unthinkable, and the costs will be on the taxpayers because corporations always externalize such costs. No reasonable person can think that any corporation will live up to the responsibility of paying for that kind of cleanup, and that is just the financial cost.	FIN10
<b>Sender Name (Submission ID)</b> Brenda Doup (5993)		
1504	There is no amount of jobs worth putting MN resources at risk.	SO01
1505	Our freshwater lakes already have contaminates.	WR109
1510	Please do everything you can to secure our great resources in our state.	WR195

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**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Brenda Doup (5993)

1967 There is no amount of jobs worth putting MN resources at risk. SO01

**Sender Name (Submission ID)**    Brenda Hoppe (44417)

10624 I am extremely concerned with the impacts that the PolyMet project will have not only on area ecosystems but to water resources that will serve generations to come WR195

**Sender Name (Submission ID)**    Brenda Jerich (47225)

9193 PolyMet is a Canadian Company and their largest investor is a Swiss commodities trading firm (Glencore) with a poor environmental and human rights record...This Swiss commodities trading firm (Glencore) has an agreement to sell copper concentrate to China. What about the US? NEPA01

9197 Open-pit mining and the entrails leave behind a devastating landscape. LU04

9200 100 jobs (short term) in exchange for millions of dollars lost in tourism and clean up (long term). SO01

**Sender Name (Submission ID)**    Brenda Johnson (43341)

15586 This mining operation in filthy. It will have long lasting effects on the environment and our children. No amount of jobs or money could possibly be worth the trade off. SO01

15587 Please explain why the continued pollution of our land is in the best long term interest of anyone. Put PolyMets history on the table for review by the people in this state. What is their history in previous places. I'd like to hear interviews by the people who live near a PolyMet mining operation, both current and past. Include environmental photos of the areas affected by PolyMet. PD23

**Sender Name (Submission ID)**    Brenda L Sweet (44063)

15882 The history of copper mining/pollution/clean up is very disheartening. What makes us think this will be any different? I have been told “well, it is all underground!” Honestly, that just doesn’t satisfy my concern for such a beautiful area and the potential seepage and damage we are asking them to merely put a deposit on. FIN01, FIN08, FIN10

15883 We will not only lose jobs people are fighting for at that point but we will lose the whole BWCA Wilderness and all this area is appreciated for. WILD02

15888 We are saying “We are so certain you are going to mess up this area, we would like a damage deposit. It won’t be enough money to get the job done after you destroy where we live but gosh, go ahead make your mess and leave, we have your deposit.” FIN01, PD25

**Sender Name (Submission ID)**    Brenda Palo (35413)

14101 I am not in favor of this sulfide mining project due to its well documented and clearly established long-term negative consequences for the local and regional people, animals, and natural environment. WI01

**Sender Name (Submission ID)**    Brenda Solomon (20207)

1792 We are VERY CONCERNED about the negative impact the mining will have on the land, water, wildlife and tourism in NE MN. LU06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Brenda Solomon (20207)		
1793	We understand mining may create jobs/revenue for the next 20 years, but the destruction/pollution it will create will last for centuries. We feel protecting the environment far outweighs any benefits PolyMet claims.	SO01
1794	Please revise the PolyMet NorthMet SDEIS to accurately and clearly predict the length of time that active water treatment would be required, and to clarify whether hundreds of years of water treatment complies with Minnesota Rules requiring that mines be "maintenance free" at closure.	PD02, PD03
1796	Minnesota Rules 6132.3200 sets a goal that after closure a mine site should be "stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact other natural resources, and is maintenance free." The mine plan calls for hundreds of years of maintenance and operating active water treatment plants, and violates this rule.	PER04
1809	I ask that you...revise the SDEIS to clearly state how long the need for active water treatment (reverse osmosis or other mechanical treatment) is predicted, according the models used in the SDEIS.	PD03
<b>Sender Name (Submission ID)</b> Brennen Stenke (46226)		
8858	The term "risk" implies uncertainty, but as your Environmental Impact Statement shows, there is no uncertainty that PolyMet will negatively impact our environment. Without doubt, PolyMet will foul our air, dirty our waters, rob habitat from our endangered animals, kill our endangered plants, and alter our landscape and its ecosystems.	VEG01, WI02
8859	Indeed, PolyMet will lose an opportunity to make a profit and some of us will miss out on a short-term economic boon.	SO02
<b>Sender Name (Submission ID)</b> brent chezick (44851)		
8015	I believe the environmental review process has been sound and thorough.	NEPA16
8016	The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
8020	It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time...[The modeling completed in the SDEIS] shows the project will still meet water quality standards even that far out – all the more reason to support it.	WR190
8023	This model demonstrates that PolyMet's plans comply with Minnesota's laws – some of the strictest environmental regulations in the country.	PER34
8024	Minnesota is home to a world-class deposit of copper, nickel, platinum, palladium and gold. This is an economic opportunity right below our feet that will benefit the state's economy for future generations.	SO10
8026	PolyMet will...generate significant economic activity, expanding and diversifying our economy and creating hundreds of jobs that can support families and sustain communities...This project would mean 2 million construction hours, 360 full-time mining jobs and more than 600 related jobs – jobs that our state needs.	SO10
8029	Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	PER34
<b>Sender Name (Submission ID)</b> Brent Notbohm (23922)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Brent Notbohm (23922)		
10293	I beg of you to seriously consider the consequences heavy metal contamination could have on our precious region, and the wildlife and water quality that people travel from around the world to enjoy.	GEN03
15019	As a tax paying citizen of the great state of Minnesota who loves the beauty of the Lake Superior basin and the Boundary Waters Canoe Area Wilderness, I am extremely concerned about this project's potentially hazardous environmental impact on the region where I live.	GEN01
<b>Sender Name (Submission ID)</b> Bret Johnson (40019)		
14893	These risks are not acceptable for the economic benefit in a region that prizes natural beauty and pristine waters.	SO01
<b>Sender Name (Submission ID)</b> Brett R. Ewald (41331)		
9316	PolyMet offers at least 20 years of jobs for between 300-360 personnel. The state will reap the benefits of taxes per pound or ton with additional taxes from purchased goods in the local communities. Their modeling....eludes to 200 years of water treatment costing between 3.6 and 6 million dollars per year. What occurs if treatment is ....200 or 500 years?	SO04
14217	It is great if their modeling is too farsighted and treatment is not needed for that long. What occurs if treatment is needed after the 200 or 500 years? Can we rely on future technologies to better mitigate the untreated water?	FIN01
<b>Sender Name (Submission ID)</b> Brett Reiersen (43)		
420	I think a properly planned and managed project could be positive, but i don't think this project, at this point, is properly planned or managed.	PD01
<b>Sender Name (Submission ID)</b> Bria Schurke (18212)		
13444	I will not accept any pollution in the community that I want to raise my children, if there's risk that my children will be raised on polluted water.	WR195
<b>Sender Name (Submission ID)</b> Brian Anderson (38814)		
5006	I'd also like to address some misinformation that has been reported in the media about the 200 and 500 years referenced in the SDEIS. In the groundwater flow model in the SDEIS, water percolates through the bedrock at an extremely slow rate of travel. For this reason, the model was run for 200 to 500 years, allowing enough time for water to move through the aquifer and reach the compliance point at the boundary included in the SDEIS. It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time. It also shows the project will still meet water quality standards even that far out.	WR190
5008	We cannot afford to miss this job opportunity. Companies that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	SO10
<b>Sender Name (Submission ID)</b> Brian Berggren (43525)		
8134	The Watershed Restoration goals described on page 3-71 seem overly optimistic. Water events, sediment and toxic waste or process water migration, have a way of defeating barriers and will only minimize watershed contamination.	PD03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Brian Berggren (43525)		
8139	Section 3.3.3.4 Financial Assurance ...that costs can be better estimated later in the permitting process as outlined in para..4.1. The 200 year and 500 year timeframes, numbers that exceed the lives of nations and certainly that of commercial enterprises, are beyond both planning and funding. The effects of dewatering, sediment movement, chemical leaks and seeps, and ground disturbances on a large scale in such a sensitive area are not possible to estimate.	FIN01
8141	With... the sensitivity of wild rice to sulfates..., the state should reduce or eliminate problem sites prior to permitting.	VEG04, WR159
8143	placing processing facilities and tailing sites at the head of an important watershed, and adjacent to the BWCA and Rainy River Watershed should never be allowed.	WILD02
15699	The 200 year and 500 year timeframes, numbers that exceed the lives of nations and certainly that of commercial enterprises, are beyond both planning and funding. The effects of dewatering, sediment movement, chemical leaks and seeps, and ground disturbances on a large scale in such a sensitive area are not possible to estimate.	PER04
15700	We cannot leave a legacy of NURPs (National Urban Runoff Ponds) for a principal watershed of Lake Superior.	WR111
<b>Sender Name (Submission ID)</b> Brian Bluhm (43729)		
11773	Despite the use of new technology, there is always risk involved when disturbing natural processes. If some aspect of the proposed management system were to fail, for example from a sustained power outage, are there other measures in place to prevent contamination?	HAZ01
11774	I am also concerned about the potential effects on human health, and the related monetary costs to those impacted and their communities.	HU03
15090	If contaminated water were to enter the watershed, are there assurances in place to prevent the cost of these impacts on human and community health from being imposed on the municipalities, tax payers and individuals of northeast Minnesota?	FIN01
<b>Sender Name (Submission ID)</b> Brian Hanson (47634)		
7629	PolyMet will be a domestic supplier of critical metals consumed every day... PolyMet can produce these metals in an environmentally sound manner and create hundreds of jobs that can support families, sustain communities and ensure a thriving Minnesota for future generations.	SO10
7646	PolyMet's project is a case study for business and economic development. The Company will put a brownfield site back in operation and reuse existing infrastructure at the former LTV site in Hoyt Lakes – a \$350 million facility that would cost nearly \$1 billion to reconstruct today.	SO10
7647	PolyMet's project will create 360 direct jobs and over 600 indirect jobs, at a time when family-sustaining jobs are needed in Northeast Minnesota.	SO10
7648	The SDEIS was a sound process – a detailed and independent review...The draft EIS offers regulators the information they need to issue permits so that PolyMet can operate in a way that protects natural resources.	NEPA16
14714	They're going to produce metals that we all need, that we all use. No matter who are you are, unless someone came here either walked here in moccasins, clothes that they made themselves, they probably got here aided by the metals we're talking about and that we need.	SO10
<b>Sender Name (Submission ID)</b> brian huberty (9279)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> brian huberty (9279)		
80	The SDEIS does not include an option or discussion for a closed water system for not only Polymet but also for other Iron Range industries.	ALT13
863	Polymet should have in good faith already restored the wetlands needed to compensate for the proposed impacts on the existing wetlands. In good faith, this action would show a more proactive approach which would help mend the long term and permanent impacts any mining operation produces.	WET04
<b>Sender Name (Submission ID)</b> Brian J (43363)		
11752	My concern lies primarily with the money available for cleanup when the containment fails because it will fail...the rock in the area fractures with frost, settling, etc so the containment isn't going to stop it all. I reviewed their stock/investor information and as far as I can tell, they don't have any money...they are completely funded by others as a startup which as soon as the well runs dry and income stops, they are going to sell their shares as fast as possible. This will leave MN taxpayers with the cleanup costs ...	FIN01
11753	I am not opposed to mining in general, but as far as I can tell, this company cannot prove they can do it safely, and cannot prove they have the finances to keep our waters clean.	PD01, PD25
<b>Sender Name (Submission ID)</b> Brian Johnson (11569)		
2217	One unique area where water is the source of life, the boundary waters should be the last place a mine goes	WILD02
2217	One unique area where water is the source of life, the boundary waters should be the last place a mine goes	WILD02
17922	With water's value going up and the aquifers going down Prairie du Chien – Jordan and the Ogallala heading for disaster with the Keystone pipeline hold off on the permits.	NEPA03
17923	Has there ever been a non-toxic copper/nickel mine? Our carbon footprint should be shrinking, NOT increasing.	PD01
<b>Sender Name (Submission ID)</b> Brian Maki (18094)		
13463	We have the opportunity to revitalize Northern Minnesota with the promise of good-paying jobs. We have done our homework and science is on the side of progress, and on the side of responsible environmental stewardship. We have the opportunity with non-ferrous mining and PolyMet to demonstrate to the world the type of people we are in Northern Minnesota. Hard working, thoughtful and caring folks who would never harm the land we love so dearly. Every job is a family. Every job is a family, and don't forget it.	SO10
<b>Sender Name (Submission ID)</b> Brian Mensolek (54502)		
19069	I am not convinced that Polymet or any other mining operation will monitor and be responsible for the tailings of these operations for the extended period of time that is warranted.	FIN01
19070	It would be exciting to see new development that can improve the economy on the Range. I would not expect, though, that it's to come at the price of risking the land we live on.	SO01
<b>Sender Name (Submission ID)</b> Brian Nelson (42553)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Brian Nelson (42553)		
17051	With technology in place and federal and state guidelines and enforcement the chance to prove copper mining can be done safe for the environment is here. Reverse osmosis is a reality and if we can do it here it will help protect the rest of the world. The economic impact of this is also beneficial for northern Minnesota lets put people to work	PER34, SO10, WR190
<b>Sender Name (Submission ID)</b> Brian Peterson (44186)		
11876	We should be working to expand the borders or protected areas, strengthen the protections and see to it that we save and preserve what we have not yet ruined. In many parts of the state it is too late or not feasible to take such actions.	WILD02
11877	I am fully confident that when all true costs are considered (loss of habitat, noise pollution, water contamination, clean-up, human health costs, infrastructure demands, etc.) these proposals will be a net loss for MN both in economic terms and human terms.	SO01
11878	I also see almost no circumstance where some of the clean-up and reclamation does not fall on the taxpayers.	FIN10
11879	The jobs this will likely create, long-term, are Superfund jobs, the kind of jobs Minnesotans don't want.	SO01
11880	My suggestion: \$500,000,000 in escrow, with an oversight board using the money to immediately address environmental and human concerns. Polymet can always add money, and keep any interest. If the fund is depleted to \$250,000,000, all mining stops, the money is used to reclaim the land and any leftovers go into the Legacy Fund. When the mine closes and the area is properly cleaned and restored, Polymet gets any remaining balance back.	FIN01, FIN05, FIN08
<b>Sender Name (Submission ID)</b> Brian Slaby (24278)		
10320	Considering that Lake Superior has a water retention time of almost 200 years, even a small risk of pollution should be taken seriously. It could create a problem for our continent's largest freshwater lake that's unsolvable for two centuries.	WR111, WR115
<b>Sender Name (Submission ID)</b> Brian Stompe (20141)		
9351	I understand the need for mining but there are places it should not be done no matter what the short term gain. The water shed that feeds into Boundary Waters is one of those places.	NEPA01
<b>Sender Name (Submission ID)</b> Brian Tighe (43187)		
10356	Allowing the Northmet sulfide mining operation would violate a binding treaty with the Chippewa to protect their hunting and fishing rights in that region, by contaminating their food sources.	PER08
15852	Please protect our most important natural resource: fresh water.	WR111
15853	Surrounding water would be contaminated by the NorthMet Mine, and though it creates a few jobs and a some tax revenue, the bulk of the profits go to foreign countries. The risks for environmental degradation are too high.	SO06
15854	The risk that taxpayers will end up footing the bill for long term clean up is too high.	FIN10
15855	The increased risk of chronic illness is too high.	HU03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Brian Wicklund (7083)		
10603	I am deeply concerned about the potential for PolyMet and other mining corporations to be allowed to mine public land that contains Minnesota's most pristine and fragile water system. It is foolish to allow a type of mining with a 100% failure rate of toxic leakage into ground and surface water to be allowed at the source of three watersheds.	WR115
10607	A decision to allow sulfide mining would also be an economic disaster. Any short term gain of jobs and revenue would be trumped by the estimated 500 years of maintenance of the waste.	SO01
10609	In spite of assurances by PolyMet, what companies can you name that have been continuously viable for 500 years? You can bet our tax paying children will be footing the bill for clean up for generations to come.	FIN01
<b>Sender Name (Submission ID)</b> Brian_Walvatne (37830)		
16338	Water is the essence of life and this mine will increase risk of severe environmental damage that could last for 500 years or more.	WR195
<b>Sender Name (Submission ID)</b> Brianne Plumadore (42730)		
14381	I have no confidence that the Polymet company can keep the surrounding watershed safe from pollution caused by the mine.	WR037
14382	As a person with special appreciation for wildlife and resident of the state of Minnesota, I am urging you to reject Polymet's proposals for sulfide mining in our state.	WI01
<b>Sender Name (Submission ID)</b> Bridget Peterson (43547)		
11090	Water is a finite resource. The Great Lakes holds some 80% of North America's fresh surface water and about 20% of the entire world's... putting resources needed not just by us here but by the entire WORLD in such jeopardy for mere profit is ridiculous.	WR111, WR195
11093	We are already wasting such resources by not engaging in recycling what's already out there as much as available, something which could both reduce pollution...and create the much-needed jobs, probably more and longer lasting employment than the mine will create, at a benefit to our environment rather than more harm.	SO02
11094	It astounds me how willing some are to let an outside corporation come in and muck up our environment so drastically for resources that seem most likely destined to be shipped overseas at a great profit for them, and just a few jobs and decades of likely irreversible pollution to our drinking water and environment for us.	SO01
<b>Sender Name (Submission ID)</b> Britt K Johnson (57263)		
17403	The impact of winter release of sulfates should be further studied. The sulfides will accumulate in the organic sediments and not flush down river during the winter. Then in the spring when the H2O warms up the microbiome will be high on verifying the stored sulfates into sulfite at the same time as the wild rice begins to germinate. John Patter's research has shown that sulfite is toxic to wild rice seedlings at very low concentrations. Thus the predictor would be that the sulfite concentration would be the highest in the spring after continuous winter loading due to water discharging of sulfate from the Polymet site. This would put the wild rice seedlings at even greater risk. The EIS should assess to the fact of what winter water releases from the Polymet site on spring sulfite levels in the seedlings of wild rice beds downstream.	VEG04, WR153, WR157
<b>Sender Name (Submission ID)</b> Britt See-benes (11619)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Britt See-benes (11619)		
3302	I believe that PolyMet has shown their responsibility by meeting all the standards purposed by the various regulatory agencies.	NEPA16
3302	I believe that PolyMet has shown their responsibility by meeting all the standards purposed by the various regulatory agencies.	NEPA16
<b>Sender Name (Submission ID)</b> Britta Dornfeld (45147)		
8383	This sulfide mine has said that it has a plan for dealing with acid mine drainage; however, this plan has never been tested before.	WR001
8391	The jobs that this mine would provide are based off of cycles of boom and bust- while they would provide jobs for a thirty to forty years, areas that benefited from these jobs would be in the same, or worse place than they were before the mine	SO02
8393	In starting this mine, more long-term jobs in tourism and public land management would be harmed, since this area would not doubt be damaged by acid mine drainage.	SO02
15426	Also, since acid mine drainage can last for hundreds of years, it is highly likely that the mitigation of the drainage will fall upon the government- an expensive, long-term task that we, as citizens and tax-payers who would help foot the bill, can ill afford.	FIN01
<b>Sender Name (Submission ID)</b> brittany kron (39112)		
5171	It would be unwise of Minnesota to destroy its streams and lakes, poison its animals, and ultimately lower the living standards of its citizens, because it will more than likely pollute lake superior.	WR111
17679	A short gain of profit is not worth the hundreds of years this project could take to clean up.	SO01
<b>Sender Name (Submission ID)</b> Bromley Griffin (22700)		
3294	Short-term jobs for a few native and non-native Minnesotans is no where near worth the risk of the permanent damage to the resource that almost always follows the flash of profits and then polluted silence following the fading of almost all major mining projects, especially copper mines.	SO01
<b>Sender Name (Submission ID)</b> Brooke Shepherd (11263)		
787	The Polymet mine will also affect our air quality by releasing sulfur dioxide, greenhouse gases and nitrogen oxide into the environment. They estimate that even with this pollution, the air quality will still be up to standards. However, an estimation alone doesn't seem safe enough to go ahead with the project.	AIR11
788	There is also a chance of mercury being released into our air and water. Though it would be a minimal amount, it is still dangerous to be releasing any amount of it into our air or water systems.	MERC22
789	The construction of the mine, the noise from the workers, the clearing of forests and the changes in air and water quality could greatly affect the several different species of animals who call the area home. Two of which are endangered species, the gray wolf and the Canadian lynx. Polymet claims that once they finish with the land, they will attempt to restore it; however, this could take decades to have it return to normal and the animals who lost their forest homes may not come back.	WI01, WI05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Brooke Shepherd (11263)		
790	My hope for the future is that we find a safer way to extract copper so the flora and fauna and the mining can live peacefully together. At this time however, the Polymet mine is not ready for this and it would be wise to wait until we know more.	NEPA03
1584	We simply do not have enough information of the damage it could cause to our environment at this time.	NEPA15
1587	The water useage from Colby Lake is another large concern in building this mine. Polymet says it could vary in using between twenty and 810 gallons per minute. There is a very large difference between twenty and 810, so we really won't know what affect it will have on the lake if we aren't sure how much water they'll be using. They say that they will build a waste water treatment plant and let it run off into two nearby rivers, but what does that mean for the lake?	WR043, WR056
<b>Sender Name (Submission ID)</b> Brooklyn Blackman (54173)		
16390	We should not use the sulfide mining act because it pollutes the water with sulfuric acid the PH levels will go down.	WR001
16392	People like to fish up there and eat the fish, if the people of Minnesota and tourists eat the poisoned fish it's not going to be good.	SO02
16393	Also it will put a huge amount of business up there. We as the people should have at least one place of natural wilderness where we could count on our generations to come and be a part of this beautiful wilderness center we have been protecting for 30 years.	SO01
<b>Sender Name (Submission ID)</b> Brownie Wood (39216)		
12350	There is absolutely nothing about copper nickel mining through the environmental impact studies that have been done that eases my mind regarding the future health of all of life so dependent on water.	WR110, WR195
<b>Sender Name (Submission ID)</b> Bruce and Linda Anderson (57928)		
19845	Any risky endeavors such as this mining project will negatively affect eh environment, the wildlife, and water quality.	GEN03
<b>Sender Name (Submission ID)</b> bruce berggren (45923)		
10345	Minnesota law is in conflict with the SDEIS, as in order to advance the SDEIS an arbitrary term of 500 years is used as the last year that monitoring is needed. The State law I am talking about is the one prohibiting issuing a " Permit to Mine" to any mine requiring "Perpetual" maintenance after closure.Chapter 5.2.2.8 "Mine Site Surficial Flow Paths" state that both the East and West pits Solute Source End Time is listed as continuous. Not for the 200 or 500 years will the flow come from the mine, but continuously. Perpetual and continuous sound pretty similar to this reader.	PER04
10349	The USFS requires the preparation of a reclamation plan to ensure the long term protection and restoration of the natural resources. If a reclamation plan has, or is being developed, the project may meet their goals. The Weeks Law of 1911 is designed to protect the headwater watershed of navigable rivers. The Partridge and Embarrass River Watersheds falls into this type of area. This law has not been addressed in any of the chapters I've read.	PD09, PD35, WR037
10352	In all the tables of contents I could not find anywhere how an emergency shutdown or closure will be handled if or when needed. An emergency shutdown chapter would let others know what management or mine owners plan to do in an emergency.	PD22

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> bruce berggren (45923)		
10355	The USFS and State are sacrificing a good part of the 100 mile swamp. The USFS in their forest plan consider this an ecologically sensitive area.	WET19
12091	The land exchange should consider lands within a reasonable distance from the mine site. The site in Cook county is beyond a fair distance from the mine site and should be removed from the exchange process.	LAN06
12773	Minnesota law is in conflict with the SDEIS, as in order to advance the SDEIS an arbitrary term of 500 years is used as the last year that monitoring is needed. The State law I am talking about is the law prohibiting issuing a "Permit to Mine" to any mine requiring Perpetual maintenance after closure.	PER04
12774	The Weeks Law of 1911 is designed to protect the headwater watersheds of navigable rivers. Both the Partridge and Embarrass river watersheds fall under protection from this law but I could not find it addressed in any of the chapters I read....In all the tables of contents, I could not find anywhere how an emergency shutdown or closure will take place if or when needed. An emergency Shutdown chapter would let others know what management or mine owners plan to do in an emergency.	NEPA04
12776	This project is for the 300 to 600 jobs that will last for about 20 years or so. The USFS and State are sacrificing portions of the 100 Mile Swamp for this mine. The USFS, in their forest plan, has considered this an ecologically sensitive area.	SO01
<b>Sender Name (Submission ID)</b> Bruce Blackburn (54783)		
19500	There is no clean sulfide mining. The waste water will never be clean. And a coal power plant is the energy source for the proposed mine. ... Deny the permits!	PER35
<b>Sender Name (Submission ID)</b> Bruce E Grewcock (42750)		
14434	As you know, mining in Minnesota is a tremendous economic driver for the state and region. Expanded mining of precious metals would have a significant and sustained effect on the economies of both. The addition of thousands of long-term jobs and expanded commerce would directly impact companies such as Minnesota Power, which serves the mining industry.	SO10
14435	Additionally, the raw materials, including the precious metals available in north eastern Minnesota, are essential to construction, and are a substantial cost for our business and ultimately our clients. Costs are higher when these raw materials must be imported, especially when using foreign sources that are unreliable or have unstable governments. There are also substantial environmental impacts when importing materials from countries that do not value environmental protection.	PD30
14436	PolyMet will provide a domestic supply of critical metals needed in medical applications, electricity, catalytic converters, cell phones, computers and other essential products. It will produce these metals in an environmentally sound manner and generate significant economic activity, expanding and diversifying our mining economy. The metals that PolyMet proposes to mine are essential to green technology such as wind turbines, solar panels, hybrid cars and pollution prevention devices such as catalytic converters.	NEPA05
14437	In short, responsible domestic mining will have a huge impact on the economies of the state of Minnesota, the upper Midwest and the nation, and will provide a reliable economical and environmentally sustainable source of raw materials for the construction industry.	SO10
<b>Sender Name (Submission ID)</b> Bruce Harten (3205)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bruce Harten (3205)		
157	I propose an underground mine , that does not infringe on the existing mess...that has an "adjacent" New Closed Loop Crushing, milling, extraction, smelting, sulphide processing & capture, water filtered and reused, dry tailings/site return...with NO EXTERNAL PONDING OR BERMS...every process INTERNAL	ALT01, ALT09
623	In putting the polymet footprint into the existing...polymet wants to use the same berms, tailing pools, ect ect, which in turn gives Polymet the liability phrase "It was polluting before we began"...were not responsible.	PD10
10449	Do not let the Footprint of this Plan get anywhere near an existing "Abandoned or Operating" mining venture! Closed loop crushing, milling extraction, smelting, sulfide packaging, tailing compaction and return, Interior ponding and water reuse...ALL IN ONE ENCLOSURE !!!...Power Goes off everything stops !!!...and all mining is done without "Open Pit"...This procedure also lets Attorney Generals Office off the hook for defending the "Criteria of Permit !	PER03
<b>Sender Name (Submission ID)</b> Bruce Hurlley (39097)		
10264	It would be wonderful if the PolyMet and GlencoreXstrata companies could guarantee that the NorthMet mine would be safe for the environment during its operation and centuries after its closure. However, the risks of sulfide mining are very high and there are no guarantees.	SO02
10270	You may believe that PolyMet would never allow sulfuric acid runoff from their mining/refining operations to destroy surrounding wetlands and that any liability for future cleanup costs would fall to the company and not to the tax payers of Minnesota... but please, also consider the track record of sulfide mining because the stakes are very high for Minnesota and this industry does not deserve your faith.	FIN10
<b>Sender Name (Submission ID)</b> Bruce Johnson (43003)		
11445	The WWTF, (Mine Site Nano-filtration) Fails to Produce Credible Results. Predicted performance of the nanofiltration system is theoretical and lacks bench scale test performance results using predicted chemical concentrations that will be seen during operations.	WR143
11463	Sulfate mass loadings will increase in the tailings basin far beyond the predicted low sulfur content of the tailing itself. This increase will produce a lowering of pH and like acid conditions. Sulfate producing acid conditions is a major cause for leaching of some heavy metals e.g. copper, nickel, cobalt, and zinc	HAZ01, WR001, WR060, WR113, WR150
12902	The long-term pollution of our precious water resources is unacceptable. Clean water is our area's most valuable resource.	WR195
12904	The financial assurances are inadequate. What is said is vague and completely unacceptable.	FIN08
12905	The proposed operation would require massive amounts of carbon-intensive energy. We need to be transitioning to sustainable energy systems.	AIR01
12906	The habitat of already vulnerable species, such as moose and lynx, are threatened by this project.	WI02
12907	Wild rice would be further damaged by the inevitable pollution from this misplaced mine.	VEG04, WR156
15303	the PolyMet NorthMet Supplementary Draft Environmental Impact Statement (SDEIS) fails to adequately address major ions and trace elements. The document ignores aquatic toxicity and possible synergistic impacts from waste rock leachates...As a result, predictions of impacts to surface and ground water are understated. Parameters that are minimized or not analyzed may also impair the ability of installed water quality treatment to meet surface and groundwater standards.	AQ06, WR060, WR064, WR110, WR113, WR130, WR147

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bruce Johnson (43003)	
15304	PolyMet 2013g, p.29 states the nanofiltration membrane has a high selectivity for multivalent ions over monovalent ions. Thus significant monovalent ions will not be retained by the mine site wastewater treatment facility (WWTF) and will be discharged. ... For PolyMet, these are the monovalent ions elements of chloride (Cl-1), fluoride (F-1), sodium (Na+1) and potassium (K+1). These elements will pass though the filter and be discharged with the filtered water...There is a conflict in statements in the SDEIS. There cannot be a 99+% removal rate while the monovalent ions pass through the filter. This demonstrates that no actual bench scale testing with actual waste and the values are simply computer predictions that have no relation to actual performance of the WWTF.	WR143
15305	The SDEIS fails to perform mass balances. Without mass calculations impacts from the tailing basin cannot be reviewed in any scientifically defensible manner. This is a major omission...there only three major locations where waste chemicals can leave this system 1. In a sludge; 2. In a seepage/leakage; 3. In a wastewater discharge. As a result each chemical must be traced by weight from its input to its final disposition. This allows a mass balance to be developed e.g. the waste input is equal to all the waste outputs.	WR189
15307	Average inputs of 500 tons per year of sulfur will be added from the WWTF to the tailing basin ...The sulfate/sulfur mass in the tailing basin will near double annually for 20 years. This impacts the prediction that sulfur will not be a problem in the tailing. It further ignores the latent impacts of the high sulfate releases after the operation ceases.	WR060, WR189
15308	The antimony mass loading is significant and demonstrates a significant potential for long-term impacts...The following are PolyMet's predicted average inputs: beneficiation = approx.0.05 tons per year, WWTF backwash = approx. 0.05 tons per year. WWTP backwash 0.08 tons per year. Seepage amounts to approx. .08 tons per year. This indicates 0.18 tons of antimony will be added to the basin each year.	WR035, WR038, WR060
15309	Nickel mass loadings to the tailings basin are substantial...SDEIS Ch.1,p.1-5 states that 11.3 million tons of tailing will be produced annually. This is 30,959 tons per day (assuming 365 day operation). Nickel can be roughly estimated from PolyMet 2013j Table 5-17, PolyMet 2013g Table 2-1, Large table 1 as describe the background discussion. Using the 90% confidence number and flow the WWTF input to the tailing basin would be 2,699 lbs./day or 1.3 tons per day. Beneficiation of the ore produces 30,958 tons tailing per day with an average nickel concentration in the tailing of 0.031 . The resultant tailing would contain approximately 959 tons of nickel per day. Thus the total nickel addition to the basin would be roughly 960 tons per day.	WR108
15312	The SDEIS fails to address the impacts of blasting agent residues [including nitrate and un-ionized ammonia] in a scientifically defensible manner...The SDEIS further states they will use 15.3 million pounds of explosive per year blasting every two to three days. This calculates to 144,000 lbs. of blast explosive for a twice a week blast cycle, and 96,154 lbs. of blast explosive on a three times a week blast cycle. Polymet 2013L, 8.4.2, p.88 defines the explosive to be used as a mixture of 30% ANFO and 70% emulsion (Table 8-9). These amounts are not inconsequential.	WR032
15313	The SDEIS conflicts with its references on ANFO usage.SDEIS Chapter 3, Table 3.2-5 states 0.45 tons/lb. per blast will be used for waste rock. SRK 2007b report states the ANFO will contain 67% ammonium nitrate. However it further states that it will use 0.3 lbs. per ton of waste rock, which is in conflict with the SDEIS. This discrepancy results in a 27% higher use of blasting agents. This significantly raises the predictions found in Polymet 2013L, Section 8.4.2, p 88.	GT01
15314	The SDEIS does not adequately analyze the fate of blasting agents remaining after individual blast hole failures.	N05
15315	The SDEIS fails to assess nitrogen impacts from blasting residues in the tailing basin...Nitrate is highly mobile and will move through the tailing basin and enter groundwater and shallow seepages. Nitrate will also enter the waste water treatment systems and complicate the treatment efficiency or be discharged to surface waters or the tailing basin. The SDEIS must fully address these inputs.	WR032, WR147

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bruce Johnson (43003)	
15316	<p>The SDEIS is in conflict with the scientific article they cite to support their modeling and evaluation. PolyMet 2013L 8.4.2. attempts to design their own model to model ground water leachates that pass through the category 1 containment to the Partridge River. Their model cites Footnote 1 as their justification to model release rates of nitrogen blasting residues. Polymet states their evaluation uses a “standard method” for this type of evaluation from footnote 1. (Polymet 2013L p.88) However the Morin report states: "...standard pre-mining techniques cannot be counted on for accurate predictions of nitrogen species. Instead, case studies become an important source of predictive information..." “ Based on this, it is not possible to provide a generic narrow range of nitrogen leaching for prediction, since values here ranged from 0.2% to 28% (two orders of magnitude). The leached nitrogen is obviously dependent on many site-specific factors (Section 2)”...It is apparent from this that PolyMet’ statement of a “standard model” does not agree with their own cited reference and the PolyMet model lacks scientific credibility.</p> <p>Mine Water Leaching of Nitrogen Species from Explosive residues, Kevin A. Morin and Nora M.Hutt, Minesite Drainage Assessment Group, Surrey, British Columbia.</p>	WR189
15317	<p>PolyMet’s analysis ignores discharges from the stockpiles that drain into the pit that then is pumped to the mine site wastewater treatment system. It also ignores the blasting agents that remain in the ore that will either enter the tailing basin and it seepages or enter the hydromet processing facility (NorthMet Waste Water Treatment Facility Design Plan, Version 2 November 30, 2012 pp. 9,10,11,12). These inputs must be evaluated in the SDEIS</p>	WR031, WR032, WR173
15318	<p>The SDEIS evaluation incorrectly assumes un-impacted ground water can be contaminated to the company’s property boundaries for dilution purposes in direct conflict with MN Rule Chapter 7060. The cutoff wall leakage from the category 1 stockpile is modeled assessing nitrate impacts at PolyMet’s property boundary as the point of compliance (PolyMet 2013L 8.4.2). Although property boundary limits have been used by MPCA previously in contaminated site mitigation. It is inappropriate to use property boundaries to allow a new industry to use ground water for dilution when a contamination source is identified prior to operations.</p>	PER09
15319	<p>The SDEIS evaluation ignores synergistic toxic effects of the hazardous materials citation identified in the SDEIS...ANFO is listed as harmful to aquatic life at low concentrations. The blasting emulsion is also a hazardous material and is listed that it may cause elevated nitrate levels in water and could affect aquatic animals (SDEIS Table 5.2.13-1, p 5-528)...emulsions can contain guar-gum, starch, Al2O3, calcium nitrate, sodium nitrate, and various wax-like hydrocarbons. None of this chemistry including aquatic toxicology are defined or provided in the evaluation by the SDEIS or the reference document Polymet 2013L section 8.4.2. PolyMet lacks an evaluation on the impacts of blasting emulsions.</p>	AQ06
15320	<p>The SDEIS proposal to dispose of category 3 &amp; 4 waste rock underwater in the east pit lacks scientifically defensible evidence that the disposal will reduce metal and other parameters leaching/dissolution will meet surface water and ground water standards including toxicity standards.</p>	WR173
15321	<p>The SDEIS ignores the impacts from non-sulfide metal parameters in proposing underwater disposal. There are a number other regulated chemical parameters that will be released when waste rock is placed underwater. These include ...specific conductance, TDS, hardness, bicarbonates, sulfates, sodium, fluoride, chloride, aluminum, arsenic, mercury, calcium, magnesium, manganese. ...As the pit/s fill, the high concentrations of these parameters will seep or flow out of the pit/s and will impact both the adjacent wetlands and the Partridge River (SDEIS Fig.5.2.2-4). Increased calcium loads will also enhance zebra mussels colonization of the watershed</p>	AQ09, AQ17, WR060
15322	<p>The East pit footwall membrane lacks scientific support.The Virginia formation is known to contain high sulfides (3% to 5%) . In the East pit the north footwall will be in the Virginia Formation. This formation when exposed to weathering will degrade and create addition surface area for leaching. ...The SDEIS proposes coat the footwall with limestone and to cover the sidewall with a synthetic membrane and to prevent leaching (PolyMet 2013l, p 99). No documentation or data is provided whether this is a successful practice at other similar sites.</p>	PD35

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bruce Johnson (43003)		
15323	The SDES proposal to dump high sulfur waste rock underwater is not supported by existing data.	MERC08
15324	Once waste rock is disposed in the East Pit and the pits discharge water fails to meet standards the ability to correct the problem to meet standards will be unrealistic.	PD04
15325	The SDEIS fails to include bicarbonates as a regulated chemical...The bicarbonate surface water standard for 2b surface waters is 5 meq/l (7050.0220 Subp.5). Bicarbonate is currently one of MPCA's parameters of concern for the LTV tailing basin leachate and under an enforcement consent decree. Standards for these parameters have also been exceeded at Mesabi Nugget, a taconite-to-pig iron processing facility on former LTV property.	HAZ01
15326	The SDEIS fails to analyze beneficiation reagents impacts from disposal within the tailing basin. ...The following chemical compounds will be used in the beneficiation process MIBC and DF250 – 2.75 tons per day (tpd); PAX – 3.20 tpd; MagnaFloX10 – 0.45 tpd, Copper Sulfate – 2.9 tpd; Gangue Depressant – 2.9 tpd. (SDEIS Ch. 3 3.2-12. (SDEIS Ch. 3 Table 3.2-12)...Metal sulfide tailing can be expected to contain the residues from the chemical additives of methyl isobutyl carbinol, MIBC/DF250 and potassium amyl xanthate...The SDEIS fails to address the toxicity of individual flotation chemicals. It fails to discuss the individual degradation products or toxicity associated with chemical mixtures, Toxicology on bench scale beneficiation wet testing has not been reported, thus environmental impacts from these chemicals are not addressed in any scientifically defensible manner.	HAZ04
15327	Insufficient time for review...The SDEIS is approximately 2000 pages, however the document only summarized conclusions based on over 60,000 pages of references. A 90-day review window for this size document is absurd.	NEPA07
<b>Sender Name (Submission ID)</b> Bruce Kuehl (39347)		
6125	I am a long term, out of state frequent visitor to MN for tourism reasons. Should MN allow this mine project I think my friends, family and I will look for a different state/province to visit.	SO02
<b>Sender Name (Submission ID)</b> Bruce Ludewig (43496)		
7899	Regarding the land swap.... It seems that there would be a net loss of forest and wetland as a result of this trade and the subsequent Polymet operations.	VEG03, WET14
7907	the proposed trade the USFS is not getting a good "price" for the lands that would be traded to PolyMet.... The lands proposed to be traded to the USFS have little mineral value, so are effectively worth much less.	LAN03
7915	Is there enough financial assurance to cover rebuilding the containment systems 100 years from now? .... I am not confident that the proper monitoring, maintenance and response to unforeseen issues will occur into the future as assumed in the SDEIS.	FIN01
7919	According to the SDEIS, the water discharged...is expected to contain levels of sulfate that are less than or equal to current levels in the watershed, and less than the current standard for wild rice waters...are we certain that we aren't replacing a natural water flow that would have had lower sulfate levels in the absence of the NorthMet project, and thus increasing the flow of sulfate into the watershed?	WR063
7923	If the model results show at a 90% certainty level that water quality won't be impaired with this project, isn't it reasonable to expect that one out of 10 similar projects might result in unacceptable contamination?	WR192
15701	Is sub-aqueous storage really a safe way to dispose of the category 4 waste rock?	PD15

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bruce Ludewig (43496)		
15702	For what it's worth, I think the comment period should have been extended; the SDEIS is a very large and complex document. Given the high level of public interest in this issue, 90 days wasn't enough time for an average citizen with a full time job to properly review the document.	NEPA07
<b>Sender Name (Submission ID)</b> Bruce Magnuson (12077)		
1650	As I understand it, there will have to be long-term containment of acid formation, and that means 200 years at the mine site and 500 years at the processing site. I think this is too long.	WR115
1651	I think the risk is too high. I know there are jobs that would be created by the mining of copper and nickel, but I feel that the area's current economic base of tourism and agriculture can continue to be a good source of income for that area.	SO02
<b>Sender Name (Submission ID)</b> Bruce McBeath (39521)		
8034	[Permitting of NorthMet mine project] is too important and has consequences too extreme to pass human health and safety concerns.	HU03
<b>Sender Name (Submission ID)</b> Bruce Peck (52548)		
15352	Please, please, please--extend the time for critical comments from the community!	NEPA07
<b>Sender Name (Submission ID)</b> Bruce Philipson (43701)		
13148	Certainly a 1,000 temporary construction jobs and something less than 400 so called permanent jobs, if 20 years is permanent, all are appealing but at what costs?	SO01
13151	The common method of operation is for the mining concerns to get while the getting is good and leave behind a path of environmental destruction. All too often escaping the economic responsibility for cleaning up their mess thru bankruptcy and leaving the public holding the bag.	FIN01
15414	Seems it would be best to err on the side of protecting the environmental certainly at least until safer mining techniques with less risk for pollution have been developed and proven to be effective.	PD32
15416	The agencies view that financial assurance be addressed in permitting is contrary to the intention of environmental review, and reduces the public's ability to comment as effectively as is possible during the SDEIS comment period.	NEPA07
<b>Sender Name (Submission ID)</b> Bruce Reno (39550)		
6351	There are no safe guards to protect the environment and the tourism industry after the mining has been approved and started.	SO02
13354	There are no safe guards to protect the environment and the tourism industry after the mining has been approved and started. What happens to the businesses and jobs that will be eliminated after the problems arise from this mining practice as has happened every where this type of mining has occurred.	SO02
13355	The people of this state cannot afford to fix the problems resulting from the mining process and the lack of over site that always occurs due to greed and miss management that is pervasive in the mining industry as a whole.	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Bruce Reno (39550)	
13535	The people of this state cannot afford to fix the problems resulting from the mining process and the lack of oversight that always occurs due to greed and mismanagement that is pervasive in the mining industry as a whole.	FIN01
<b>Sender Name (Submission ID)</b>	Bruce Snyder (58064)	
19870	Do we still offer short term riches in exchange for our long term best interests? I hope not.	SO01
<b>Sender Name (Submission ID)</b>	Bruce Synder (18184)	
3985	The surface water and streams and groundwater that this plant will be affecting are in the watershed of the Great Lakes. The Great Lakes is 20 percent of the world's freshwater	WR111
<b>Sender Name (Submission ID)</b>	Bruce Ventura (34208)	
13243	Sulfide based ore extraction took place in northern Wisconsin in the late 1990s, with disastrous results for the rivers in that area. NO sulfide based ore mining or extraction of coal that is high in sulfur has ever been done without major contamination of water resources. No technology has ever been developed to prevent the damage and destruction of watersheds in any region in the world where sulfide based mining has occurred.	WR023, WR128
<b>Sender Name (Submission ID)</b>	Bruce Vukelich (44066)	
7697	200 and 500 year spans of cleaning pollutants and waste from water and the land in the area and surrounding areas is testament enough for me of the potential damages we could sustain to our already endangered eco-system.	PD01
7714	Jobs and opportunities are very important to the vitality of the Iron Range of northeast Minnesota but not at the cost of our water and soil.	SO01
14920	the FondDuLac watershed district maps produced to show current levels of pollution, many with areas that are already over the limit specified by the EPA as being safe is a big concern. Adding this new mining operation to this area will only add to these already troubled areas.	CU11
14921	We are one of the few states in the country with the water resources we have and we should be highly protective of those resources.	WR195
<b>Sender Name (Submission ID)</b>	Bryan Emmel (39577)	
13484	Hydrologists and futurists agree that one of the most precious commodities of the future is clean, potable water. Northeast Minnesota has some of the most pristine surface waters in the world. It makes no sense to trade it for ten pieces of gold.	SO01
<b>Sender Name (Submission ID)</b>	Bryan Nelson (47518)	
11343	Twenty years of minor prosperity is not worth 500 years of pollution.	SO01
<b>Sender Name (Submission ID)</b>	Bryan Thao Xao Chay (54220)	
16683	Do you know what [Polymet's mine] would do to the Boundary Waters? It would basically poison the water with sulfuric acid! But that's not all of it. The water would be contaminated for over 500 years! And the cost to decontaminate it would cost a lot, even higher than one billion dollars.	FIN10, SO01, WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bryan Thao Xao Chay (54220)		
17311	Polymet’s plan to mine is also wrong too. They plan to mine in a huge area, but they are telling everybody that they’re only mining in a small area. Which is a lie! How can you trust and allow a company to go through with this plan, when it is so obvious that they are lying!	PD30
<b>Sender Name (Submission ID)</b> Bryan W Cox (9333)		
936	If Polymet has developed a reverse osmosis process that extracts minerals from waste well below the EPA standards as they claim, one would believe their ability to be environmentally viable. Furthermore, waste water can be treated before being reinstated into the surrounding area.	PD03, PD05
937	Recent concern regarding water flow data along the Partridge River have been brought forth. Opponents tout further reason to avoid implementing the mine; however, according to the Duluth News Tribune, a sensor was not placed into the river until mid-2011. I question the true impact of this revelation. First, two years is not a sufficient period of time to conclude consistent water flow data. Second, Northern Minnesota went through one of the worst floods in history in June of 2011, which would obviously elevate data. Finally, data can be skewed by both opponents and proponents alike to meet their own agendas.	WR003
938	Our current laws are sufficient enough to protect these standards.	PER34
<b>Sender Name (Submission ID)</b> Bryan Wood (9521)		
10798	a lot of already mined precious metals end up in the garbage and dumps because our state and nation have inadequate and underperforming recycling programs, which would reduce our need to mine these metals.	NEPA06
10808	[A]s soon as sulfide rocks are exposed to water and air, sulfuric acid is created and toxic metal leaching occurs. The outflow of this sulfuric acid infused water, otherwise known as acid mine drainage, contaminates drinking water aquifers, lakes, and streams, agricultural lands, and prime fish and wildlife habitat. Because acid mine drainage cannot be stopped, once started it must be treated until the acid generating material runs out.	AQ08, WR115, WR141
10812	With the proposed PolyMet and Twin Metals mines, there is the strong likelihood that not one but two watersheds (St. Lawrence Seaway and Hudson Bay) would be impacted.	WR198
10815	Just because you write in an EIS that you can contain the pollution doesn’t mean you actually can. If you have enough good writers and attorneys, anything can be made to sound convincing, but Minnesotans are the ones who are going to pay for this when the pollution happens.	WR017, WR018, WR037
10818	The promise of jobs is obviously a huge selling point for this proposal and a reason many back it. But when you look past PolyMet’s initial allure of 360 permanent jobs and 1,000 construction jobs projected, you see the reality...PolyMet is a Canadian based mining company headquartered in Toronto. While they do have Minnesota offices, neither are owned by a Minnesota company, let alone a US company. How much do you think stakeholders hundreds or thousands of miles away in Canada and Chile are going to care about northern Minnesota’s environment when making decisions?	SO06
10820	PolyMet writes that its company expects only 25% of the workers would be hired locally. 90 workers would be from neighboring communities, almost 200 would come in from elsewhere, and 72 would commute from regional hubs like Duluth.	SO06
10821	How many families in St. Louis, Lake and Cook Counties are reliant upon the hundreds of thousands of tourists and outdoor recreationalists who visit this amazing part of our country to enjoy our beautiful waters and lands? How many of those 216,322 Northeastern Minnesotans have jobs heavily or directly tied to tourism and recreation that will be negatively impacted by a polluted environment? Are we prepared to find them all new jobs?	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bryan Wood (9521)	
10826	Mining is an extractive business. Because we live on a finite planet with limited resources that also means that it is temporary. At some point, the resource will be exhausted and at that time so will its ability to produce jobs. By contrast, responsibly managed natural resources that support outdoor recreational opportunities can generate revenue and jobs in perpetuity. If we make decisions based on the health of the water, land and air, we will also be creating the framework for a sustainable economic model that will provide jobs and enjoyment for generations and generations.	SO02
10828	The BWCAW is the most loved and visited wilderness area in the U.S.A. providing a continuous, perennial source of revenue for businesses in Northeastern MN...How many people are going to want to camp on those shores, swim in those lakes, eat the fish and drink the water when it is laced with sulfuric acid?	WILD02
10829	If the mining industry impairs our waterways and natural resources to the point where we lose tourism and ultimately jobs, even if all the losses are made up with mining jobs, we still lose.	SO02
10832	The Environmental Impact Statement on the mine suggests that the water from the mines will need to be treated for 500 years...How many operations do we have that have been going for 500 years, are several hundred years into a cleanup phase and are still doing it as they had originally stated? None. How many companies do we even have in North America that have been around for 500 years? Again, none.	WR037
10834	Even if there is only a 1% chance annually that there could be water contamination from the mines, over a 500 year lifespan of the project that turns into a 50% likelihood that at some point, some time, something will go wrong and contaminated water will make its way into the watershed.	WR107, WR108, WR129
10835	To cover the contamination danger, PolyMet will put money away into a cleanup fund. It might even amount to several hundreds of millions of dollars down the line. But how can anyone possibly know what amount of money will be adequate for a cleanup if some disaster happens in 300-400 years? How could there possibly be enough money for a spill that far down the road?	FIN01, FIN05
10837	How popular will we be with our Great Lakes neighbors if we pollute the Greatest of the Great Lakes after all this work has been done to protect and restore it?	WR111
10839	[The Superior National Forest] brings in millions of dollars of revenue into the tri-county area. Fully 445,000 of its acres are covered with water (190,000 of those acres are within the BWCAW). The BWCAW is home to 1,175 of some of the cleanest lakes in the U.S. What are the odds that not one of those acres of freshwater will be contaminated with these mines?	WR111
10840	This permitting process should not be awarded to these mining operations because they have sunk \$190 million into this process, have the loudest voices, the largest demonstrations, pay for buses to bring people down from the Iron Range and sponsor a softball team in Ely. This permitting process needs to be made based on science.	PER35
10841	[T]he science shows that sulfide mining creates acid drainage, and history shows that wherever there have been copper and nickel mines, there have been environmental problems.	PD26
16174	To get at the deposits, mining is necessary, and unfortunately as soon as sulfide rocks are exposed to water and air, sulfuric acid is created and toxic metal leaching occurs. The outflow of this sulfuric acid infused water, otherwise known as acid mine drainage, contaminates drinking water aquifers, lakes, and streams, agricultural lands, and prime fish and wildlife habitat.	WI02, WI04, WR001
16176	Because acid mine drainage cannot be stopped, once started it must be treated until the acid generating material runs out. As acknowledged in federal governmental mining permits, this can take hundreds or thousands of years.	FIN11

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bryan Wood (9521)	
16177	The proposed mining sites are all located within igneous and metamorphic bedrock, billions of years old and full of fractures that will allow contaminated water to infiltrate quickly through the cracks and get into waterways and aquifers. With the proposed PolyMet and Twin Metals mines, there is the strong likelihood that not one but two watersheds (St. Lawrence Seaway and Hudson Bay) would be impacted.	WR010, WR042, WR071, WR090, WR198
16178	A 2006 study by mine engineer Jim Kuipers and geochemist Ann Maest showed that 76% of the world's similar sulfide mines have exceeded the water quality predicting in their pre-mining Environmental Impact Statements, and for mines near surface water, that number is 85%.	WR023
16179	We will pay with the loss of our pristine waters, recreational opportunities, jobs built around those resources and a diminished future.	SO01
16182	PolyMet writes that its company expects only 25% of the workers would be hired locally. 90 workers would be from neighboring communities, almost 200 would come in from elsewhere, and 72 would commute from regional hubs like Duluth.	SO06
16183	How many families in St. Louis, Lake and Cook Counties are reliant upon the hundreds of thousands of tourists and outdoor recreationalists who visit this amazing part of our country to enjoy our beautiful waters and lands? How many of those 216,322 Northeastern Minnesotans have jobs heavily or directly tied to tourism and recreation that will be negatively impacted by a polluted environment?	LU06
16185	These northeastern cities are reliant upon the fact that this part of the state is a nation-wide attraction for people wanting to camp, hike, boat, paddle, fish, hunt and explore. How will a damaged and polluted northern Minnesota impact the jobs of realtors trying to sell once beautiful places with pristine views, clean water and air?	SO01
16186	At some point, the resource will be exhausted and at that time so will its ability to produce jobs.	SO02
16187	How many people are going to want to camp on those shores [BWCAW], swim in those lakes, eat the fish and drink the water when it is laced with sulfuric acid?	AQ05
16188	If the mining industry impairs our waterways and natural resources to the point where we lose tourism and ultimately jobs, even if all the losses are made up with mining jobs, we still lose.	SO02
16192	The Environmental Impact Statement on the mine suggests that the water from the mines will need to be treated for 500 years...Can we honestly be serious about asking 20 generations of Minnesotans to clean up our mess so one or possibly two generations can earn some money?	FIN10
16193	By the time 2516 rolls around, do we really believe PolyMet, Twin Metals and whatever political system is governing this area will still concerned with cleaning up an old mine area in northeastern Minnesota from nearly 500 years ago?	FIN01
16195	Even if there is only a 1% chance annually that there could be water contamination from the mines, over a 500 year lifespan of the project that turns into a 50% likelihood that at some point, some time, something will go wrong and contaminated water will make its way into the watershed.	WR107, WR108, WR129
16197	To cover the contamination danger, PolyMet will put money away into a cleanup fund. It might even amount to several hundreds of millions of dollars down the line. But how can anyone possibly know what amount of money will be adequate for a cleanup if some disaster happens in 300-400 years?	FIN01, FIN05
16199	With the recharge cycle for Lake Superior at 191 years, the real impact to Lake Superior could be nearly 700 years if contaminated water is still reaching it as the clean up reaches its supposed end point.	WR198
16201	The BWCAW is home to 1,175 of some of the cleanest lakes in the U.S. What are the odds that not one of those acres of freshwater will be contaminated with these mines?	WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Bryan Wood (9521)	
16478	I also know a lot of already mined precious metals end up in the garbage and dumps because our state and nation have inadequate and underperforming recycling programs, which would reduce our need to mine these metals.	NEPA03
16480	We are the state that voted to add a constitutional amendment to protect our environment so that future generations will be able to enjoy these natural resources. What kind of message do we send to our state's residents who volunteered to be taxed more hard-earned money to protect, restore and preserve the environment when we open up a sulfide mining operation in our two globally unique and pristine natural resources?	NEPA02
16481	The proposed mining sites are all located within igneous and metamorphic bedrock, billions of years old and full of fractures that will allow contaminated water to infiltrate quickly through the cracks and get into waterways and aquifers. With the proposed PolyMet and Twin Metals mines, there is the strong likelihood that not one but two watersheds (St. Lawrence Seaway and Hudson Bay) would be impacted.	WR012, WR111, WR198
16482	Would you get behind the wheel of a car if you knew that model of seatbelt broke three-quarters of the times it was used? Would you grant a permit to a type of mining that exceeds its pollution mandates that often?	GEN03
16483	Just because you write in an EIS that you can contain the pollution doesn't mean you actually can. If you have enough good writers and attorneys, anything can be made to sound convincing....	PD01
16484	Minnesotans are the ones who are going to pay for this when the pollution happens. We will pay with the loss of our pristine waters, recreational opportunities, jobs built around those resources and a diminished future.	SO01
16485	How much do you think stakeholders hundreds or thousands of miles away in Canada and Chile are going to care about northern Minnesota's environment when making decisions? Will profits take a backseat? Are they going to care as much about protecting our wonderful natural resources as the resort owners, the fishing guides, the outfitters in the area?	PER02
16486	How many families in St. Louis, Lake and Cook Counties are reliant upon the hundreds of thousands of tourists and outdoor recreationalists who visit this amazing part of our country to enjoy our beautiful waters and lands? How many of those 216,322 Northeastern Minnesotans have jobs heavily or directly tied to tourism and recreation that will be negatively impacted by a polluted environment? Are we prepared to find them all new jobs? These northeastern cities are reliant upon the fact that this part of the state is a nation-wide attraction for people wanting to camp, hike, boat, paddle, fish, hunt and explore. How will a damaged and polluted northern Minnesota impact the jobs of realtors trying to sell once beautiful places with pristine views, clean water and air? And after 20 years, when the mine likely shuts down, what do we do then?	SO02
16487	responsibly managed natural resources that support outdoor recreational opportunities can generate revenue and jobs in perpetuity. If we make decisions based on the health of the water, land and air, we will also be creating the framework for a sustainable economic model that will provide jobs and enjoyment for generations and generations.	SO02
16488	Today, nearly 140,000 visitors come to the BWCAW for multi-day trips, buying supplies, filling gas tanks, frequenting restaurants and lodging establishments, and supporting the local economy. How many people are going to want to camp on those shores, swim in those lakes, eat the fish and drink the water when it is laced with sulfuric acid?	WILD02
16489	By the time 2516 rolls around, do we really believe PolyMet, Twin Metals and whatever political system is governing this area will still be concerned with cleaning up an old mine area in northeastern Minnesota from nearly 500 years ago? And not just at that point, but every year from now until then, because we can't afford even one year where mistakes and accidents are allowed to happen.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Bryan Wood (9521)		
16491	How can we know what the potential clean up costs will be hundreds of years down the road? How many of us are willing to ask our future Minnesotans to clean up this mess when something goes wrong? They are the ones who will be stuck with whatever happens with that mine, long after the initial players are gone.	FIN01, FIN05
16493	We have worked too hard and passed hard-fought legislation like the BWCA Act of 1978 to protect what we have here in Minnesota; amazing natural resources; clear, clean lakes intertwined and connected unlike anywhere else on Earth. We do not have the right to damage and impair these places.	PER41
16494	This permitting process should not be awarded to these mining operations because they have sunk \$190 million into this process, have the loudest voices, the largest demonstrations, pay for buses to bring people down from the Iron Range and sponsor a softball team in Ely. This permitting process needs to be made based on science. And the science shows that sulfide mining creates acid drainage, and history shows that wherever there have been copper and nickel mines, there have been environmental problems.	GEN03
<b>Sender Name (Submission ID)</b> Bryce Makela (19522)		
13377	I can't find any information in the EIS that has looked at the existing copper mine that was closed in Ladysmith, Wisconsin. I would think that, rather than modeling, computer modeling, you know, sulfite concentrations in water, that there should be a comparison study of a few existing copper mines that use modern technology, such as the Eagle Mine in Upper Michigan, and the closed Ladysmith Copper Mine.	PD26
<b>Sender Name (Submission ID)</b> Bryn M Shank (57198)		
17086	Ruining the environment for up to 500 years is selfish! The CEOs of these mining companies won't be around. They won't have to pay for the health concerns.	FIN01
<b>Sender Name (Submission ID)</b> Bryn M. Shank (16486)		
1525	500 years of clean up is way too long.	WR115
<b>Sender Name (Submission ID)</b> BSMAJEWSKI@aol.com (47161)		
8372	It is imperative that any water discharges from this operation off site meets all standards that protect all users of the resource (plants, animals, insects, etc. that are part of the food chain at all levels) within the watershed it will be placed in.	WI04
8381	It is assumed that rather large quantities of water will be affected by the process and whether this amount can be adequately stored onsite and treated before release to the adjacent watershed for travel eventually to the St. Louis River and Lake Superior where it will be drawn into the intake for drinking water by the residents of the urban area of Duluth and Superior. The 12,000 acre estuary could be adversely affected by the water if it is not adequately treated before release.	WR042, WR111, WR147
8384	Once groundwater pools are contaminated there is no remediation. This contamination could travel considerable distances to affect areas unknown to us today.	WR115
8397	If treatment time is in the range of 200-500 years... I don't think anyone is going to have the resources to set aside to support the long term cost of the treatment process and replaced equipment for that long.	FIN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Bud Fontana (18116)		
3373	... the average mining job paid \$62,000 per year on average. The jobs PolyMet will create are good, high-paying jobs people on the Iron Range are trained for and are good at. Spin-off jobs created because of PolyMet, like those at (inaudible) also very important to our community.	SO10
<b>Sender Name (Submission ID)</b> Building Construction Trades Council (54696)		
17794	We believe that questions on water quality now and into the future have been identified. The report describes a method in which remediation would occur; minimizing the potential impact on our watershed.	WR190
17795	The report also describes a clear path in developing financial assurance for our State and its residents on the North Met site.	FIN16
17796	We believe that PolyMet, DNR, with other State and Federal agencies have complied with the requirements and expectations laid out in the SDEIS. ... We believe the SDEIS has met and exceeds mining standard which promotes good stewardship in this exciting mining opportunity in Northeastern Minnesota.	PER34
17797	Three public hearings, an extended period of time for comment, and reams of paper should be enough to move this project to its next step.	NEPA16
<b>Sender Name (Submission ID)</b> Burgess Eberhardt (16181)		
9767	In my view, the SDEIS is inadequate and the proposed mine plan would have unacceptable environmental impacts.	NEPA15
11500	I just do not understand how any company can provide adequate insurance for a 500-year period.	FIN01
11510	And although jobs are very important, they in the very long time frames discussed are relatively short-term.	SO06
<b>Sender Name (Submission ID)</b> bwolfe (4570)		
1852	If water pollution will last for a MINIMUM of 500 years this document gives generalities when it comes to COSTS.....repairs, monitoring, treatment of the water. etc. Are we really going to pass all this on to future generations?	FIN11
1853	the SDEIS document NEEDS a cost/benefit analysis of the Polymet mine! This document is inadequate and the risks are too unknown to have this type of mining in Minnesota!	SO04
8675	Polymet's SDEIS needs to be more specific about the expected amounts of mercury that will be released into the surrounding watersheds.	MERC16
8682	The SDEIS needs to include the effects of mercury emissions and the exposure to asbestos and arsenic on the health of humans living in the area or visiting the area, as well as the animals and vegetation.	VEG06
8685	The SDEIS needs a cost analysis on the indirect harming of wetlands, air pollution, and redirecting of water in the Partridge River headwaters.	AIR11
8692	Once the water is contaminated there is no way to purify the water to make it safe for human consumption; it would cost billions and take decades.	WR070, WR109, WR115, WR147
<b>Sender Name (Submission ID)</b> Byron Kuster (16074)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Byron Kuster (16074)		
9830	I believe it has overlooked one important matter, the possibility of a terroristic action directed towards the mercury that is planned to be stored on-site... My concern is that a terrorist, foreign or domestic, could create an improvised explosive devise (IED) and direct it to the Polymet's on-site stockpile of mercury. If accomplished, the explosion could disperse mercury in all directions in a manner that would be extremely difficult to clean up quickly and thoroughly. The un-recovered, toxic mercury could then cause seriously pollution to the watershed and underground aquifers...A plan of prevention needs to be included in the SDEIS...This plan should include an estimate of its cost, its duration, and its likelihood of success.	PD22
<b>Sender Name (Submission ID)</b> byron paulson (20178)		
1772	is [it] reasonable to expect that vigilance in monitoring and potential cleanup will really occur centuries from now.	PD01
<b>Sender Name (Submission ID)</b> Byron Rice (39876)		
14279	I don't want my grand children having to pay for cleaning up Northern Minnesota because we thought it would be a good idea to get jobs up there for a 20 year stretch.	FIN10
<b>Sender Name (Submission ID)</b> Byron Richard (8)		
30	The process presented is blind [and inadequate] to an informed consideration of impacts that could extend from 200 to 500 years into the future.	WR021, WR036, WR115
31	Geological asset extraction yields short-term financial benefits while expending social, health and other economic resources a score of generations or more into the future.	SO01
11431	Your assumptions call for best case scenarios for rainfall and assume no leakage in the containment facility. Both of these assumptions are on the wrong side of caution. There is no sulfide mining mitigation that has been successful. The Polymet reserve osmosis plan doesn't have the capacity, never mind the funding for 2000 years.	WR126, WR128, WR195
15725	Your assurance, though possibly legal, does not adequately equip the state and future residents to maintain the mitigation of water pollution.	WR037
15727	I'm looking at Mine Site Version 5.0 Model, Annual Average of Concentration Statistics, CU in the long-term WWTF Influent. This chart ends at year 200 with almost no change in concentration. 1) what kind of fraudulent representation is this? At that slope how long does it take to achieve acceptable mitigation, 2000 years?	PD03
<b>Sender Name (Submission ID)</b> C Goustin (8128)		
10628	This is permanent destruction of our home planet for short-term corporate gains. The pressure is on you to sell the citizens out to a dirty, greedy corporation. Do the right thing. Say no.	SO01
10629	Even if reverse osmosis is the miracle that the mining companies claim, who will be here to do it?	PD03
10631	Who will be here to treat the wastewater in five or six hundred years? Do you think PolyMet will be there? What is the average life of a polluting corporation in our modern era?	FIN01
<b>Sender Name (Submission ID)</b> C Jean Kilgour (11578)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> C Jean Kilgour (11578)		
14201	We are on top of some of the best water in the world and cannot afford to risk any danger to it. What would we do without that water. Duluth had to carry water because of asbestos and we don't want to go thru that again – or worse. Unless a full proof way of using the waste (not storing it) I can't see why we would even consider it.	WR195
14201	We are on top of some of the best water in the world and cannot afford to risk any danger to it. What would we do without that water. Duluth had to carry water because of asbestos and we don't want to go thru that again – or worse. Unless a full proof way of using the waste (not storing it) I can't see why we would even consider it.	WR195
<b>Sender Name (Submission ID)</b> C Stephens &/or L Olson (38855)		
5166	It does not and cannot provide reassurance that this mining will not result in irreparable harm to the watery environment in Minnesota's Arrowhead. PolyMet's proposed mine threatens the state's clean water, wild lands, and public health.	HU01, WR115
16838	These valuable resources [i.e., water, wilderness, and public health] must be protected and not sacrificed for short term employment and profits.	SO01
<b>Sender Name (Submission ID)</b> c. dino pappas (4006)		
712	The environmental issues will be answered with a cleaner state that which exists now (remember this is an old iron ore mine).	PD28
713	The community is desperate for jobs, this area has some of the highest unemployment in the state, with this project there will be thousands of new jobs.	SO10
715	The fact is that PolyMet is going to be using reverse osmosis as it's topping of it's water treatment.	WR143
717	Minnesota is very rich in natural resources lets use these gifts, and we have a very well educated population. I think that we have a chance to keep more of these people in the state by creating these new jobs.	SO10
721	these are strategic materials which we currently get from other countries which are not all that friendly.	ALT16
<b>Sender Name (Submission ID)</b> C. Morgan McNeil (25624)		
10431	Renal tubular malfunction and pulmonary emphysema from Cadmium, Arsenic, Mercury are on offer to local residents. A corresponding threat to the health of wildlife will result in species decline.	HU03, WI04
<b>Sender Name (Submission ID)</b> Cahrene Dimick (57968)		
19873	I understand the need for employment, however I am completely opposed to jobs that will place at risk and harm our natural resources.	SO01
<b>Sender Name (Submission ID)</b> Caitie Ryan-Norton (45112)		
10605	Participating in a mine that has even the most remote chance of polluting our waterways is not worth it. Our water is an incredibly valuable resource that should not be taken for granted.	WR111
<b>Sender Name (Submission ID)</b> Caitlin Bellis (42444)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Caitlin Bellis (42444)

- 6781 The proposed PolyMet mine is a dangerous beginning to the degradation of lands and waterways we have fought hard to protect for decades. PD01
- 6782 Understandably, there is profit to be made by mining. However, money has a finite existence, whereas the natural beauty and resources of the BWCA are infinite, so long as we protect them. SO02
- 6784 we have the responsibility of protecting the headwaters of the Mississippi River, a water source that cuts through our country and supplies water to millions of Americans. WR111

**Sender Name (Submission ID)**    Caitlin Kelley (57189)

- 18648 The PolyMet proposal represents unjust risks to our natural resources and the public health. Do not allow this to go through and threaten Minnesota's water quality and native and state resources. Mines like the mine proposed have never been operated without contamination of the environment. SO02
- 19352 The mine poses countless environmental risks like the sulfuric acid waste that will contaminate the Lake Superior watershed. Any proposal that states that pollution from the proposed plant could be an issue for 500 years should send up a red flag. WR111, WR115
- 19975 The environmental costs of the mining project being proposed are not worth temporary jobs supporting a temporary industry. SO01

**Sender Name (Submission ID)**    Caleb DeGolier (47695)

- 7947 The possibility of an accident that could drastically affect Minnesota's wilderness and habitats of our wildlife is definitely not worth the relatively few number of jobs the mine will provide. SO01
- 7950 [N]o company that can be trusted to provide clean-up for contamination for hundreds of years. What if they file bankruptcy for instance. The tax payer and the environment will end up paying the price. FIN01

**Sender Name (Submission ID)**    Cali Mellin (57192)

- 17078 The mining project would damage Minnesota's Boundary Waters, a very important part of the environment; WR111

**Sender Name (Submission ID)**    Candace Smolich (44677)

- 7008 I see PolyMet as keeping our mining jobs alive on the Iron Range. And jobs with decent living wages which will keep our future families stay in our area and grow our population overall. SO10
- 7112 I believe once the PolyMet mining project begins [jobs are] something I will be able to offer. SO10
- 7114 I have no doubt that the SDEIS gives regulators the information they need to issue PolyMet Mining permits to operate while protecting natural resources. PER34

**Sender Name (Submission ID)**    Candice C Pierce (54823)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Candice C Pierce (54823)		
18492	If we let Polymet mine the way they want to an even worse problem (sulfuric acid run off) will occur in the water of the Lake Superior watershed and by some knowledgeable estimates could take 500 years to be cleaned up. Do we really want to do this to one of the world's largest and most beautiful lakes?	WR111
18494	In every sulfide mine we know of that is not located in permafrost or desert, acid mine drainage has resulted in polluted water. When mining companies claim that mines have operated without violating water quality standards, it is because some states routinely exempt mines from the standards.	WR023
18497	Polymet must ... answer truthfully and positively as to how the polluted water [will] effectively be treated. Is it even possible to rehabilitate the water and environment from pollutants, what is the guarantee of money for rehabilitation and what is the cost and who will pay when Polymet has left?	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Caree Gordon (37752)		
11145	If PolyMet wants us to believe their mining won't pollute the rivers, lakes and water shelf, then they need to take inspectors to past mining sites they have constructed and actually demonstrate that the waters have not been polluted. I doubt very much if they can demonstrate this, as mining has always resulted in pollution.	WR023
11147	Many well established businesses in Northern MN that depend on clean water for fishing, as well as the survival of our wilderness & wildlife will be in jeopardy if PolyMet's mining initiative is allowed to begin destroying the land in Northern MN to extract minerals.	SO02
11151	... the Superior National Forest borders are in jeopardy of being changed. If a border is changed it is geographically a small change; however, the polluted and/or fresh water that runs underground cannot observe a man-made boundary. If our great lakes, rivers & drinking water are polluted, aware people will stop visiting MN for their summer vacations.	LAN01
11152	In 15-20 years when PolyMet has extracted all the copper and minerals from the Earth, they will pull out and leave a wasteland that will take 100s of yrs to rehab.	PD01
11155	I don't even need to mention the health risks people will face when the water is polluted from the carcinogens that are used in the chemical buffers added to the waste before being dumped into the rivers (that eventually run off & enter Lake Superior (i.e. water shelf).	HU03
<b>Sender Name (Submission ID)</b> Carl and Jean Stueland (47082)		
11236	Mining should be allowed only if the mining companies are held to the current Minnesota environmental laws and standards without giving them variances. Mining isn't a problem as long as the mining companies aren't given variances which weaken the laws and standards already in place.	PER06
<b>Sender Name (Submission ID)</b> Carl Anderson (43112)		
11695	When something goes wrong, they'll pay the environmental fine and we'll be left with the mess and contamination for eons to come.	FIN01
<b>Sender Name (Submission ID)</b> Carl Grandstrand (36613)		
10519	I would take clean water over digging up a whole bunch of rock to gain a few tons of copper nickel ore that they might get, and then leave that area in mess of mining taillings. Don't let them destroy our beautiful state and its water supply.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	carl helke (14776)	
13792	how can anybody know for a fact whats going to happen 500 years fromnow?	FIN01
<b>Sender Name (Submission ID)</b>	Carl Johnson (16285)	
10502	Mark Dayton and his executive council should be at least as cautious as Wisconsin's counterparts in banning any future sulfide mining in the state until the technology, if and when, proves harmless after ten years of mining and at least ten years following the termination of mining, anywhere else!	PER25, PER35
<b>Sender Name (Submission ID)</b>	Carl Unger (11635)	
8257	The undevelopment of the arrowhead region is what makes MN more pristine than other states. With the northwoods environment being mined for resources...the state of MN should be taking a proactive stance in preventing such erosion of our precious wilderness with the replacement of poisons that will get into the air and water.	WILD02
8257	The undevelopment of the arrowhead region is what makes MN more pristine than other states. With the northwoods environment being mined for resources...the state of MN should be taking a proactive stance in preventing such erosion of our precious wilderness with the replacement of poisons that will get into the air and water.	WILD02
<b>Sender Name (Submission ID)</b>	Carla Arneson (9536)	
953	There is no cumulative impact study of all sulfide mining proposed for our labyrinth of waters, where PolyMet would set the standard.	CU04
954	Now we know that mine-site water modeling was based on incorrect numbers for groundwater flow rates, the same concern that tribal agency scientists have raised for years. And why are we even considering a project that has so little data it cannot factor in water-flow variables from multiple years?	WR003, WR091
3320	Released to the public on December 6, the final version of PolyMet's SDEIS is a fabrication, morphing from ERM's determination of water treatment for "perpetuity" to a watered-down version... By the time the general public saw PolyMet's SDEIS there was no mention of perpetual... And by then the public's right to know had been emasculated even further. "Minimum" had been cut, no longer delineating water treatment of "200 years at the mine site and 500 years at the plant site." Water treatment "for the very long term" became "long term." But one telling word survived, it concerned closure, and "transitioning from mechanical to non- mechanical/passive water treatment if or when proven effective." (SDEIS 3.1.1) IF. If, or when, proven effective! Sophistry.	PD03, PD06
7693	There are inadequate and incomplete cumulative impacts (effects) analysis...The SDEIS does not look at the true cumulative impact of a copper-sulfide range in the middle of an irreplaceable ecosystem, an ecosystem that will be damaged beyond repair, for "perpetuity," by the pollution of such a mining district.	CU11
7695	A study of the human health effects from proposed sulfide mining, vital information for the well-being of our children, is missing from the SDEIS.	HU01
7699	Impacts to wildlife, in particular Minnesota's moose, are inadequately addressed, or in the case of moose, missing.	WI01
7700	The massive amounts of coal-fired electrical power needed by proposed sulfide mining operations, in light of global warming, are missing and must be addressed.	AIR02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Carla Arneson (9536)	
7703	Superior National Forest Service land, prime wetlands, must not be exchanged. Open pit mining on the proposed land is prohibited. To destroy all surface resources for one subsurface resource is not why the Superior National Forest was created. It was intended to be sustainable for future generations.	LAN02
7704	The NorthMet mine would be in the Superior National Forest, right up against the Laurentian Divide; the mine would be situated on top of bedrock that is riddled with fractures and faults (one runs the length of the mine site and crosses beneath the Divide). Blasting would create more fractures, widen and lengthen the ones that exist...No one knows where the contamination will end up. Some of it could easily transfer to the Kawishiwi Watershed.	WR012, WR016, WR169
7705	PolyMet's SDEIS is flawed in all of those areas. Incorrect water flow modeling and incorrect assessment and modeling of contaminated, uncollected seepage makes this SDEIS unacceptable and it must be rejected.	WR189
7718	The SDEIS is missing health studies necessary to protect our children from the impacts of sulfide mining, and from the impacts of massive amounts of coal-fired electricity used for powering the industry.	HU01
7719	The PolyMet SDEIS does not address loss of habitat and other impacts to Minnesota's moose population by proposed sulfide mining, as well as by taconite mining	WI01, WI02
11931	...Minnesota's Arrowhead is facing perpetual pollution and water treatment from PolyMet's NorthMet Project, if its mine is permitted.	WR035, WR111
11941	There is no acceptable trade-off for perpetual water pollution and increased neurological damage to our children, some of it inheritable for unknown numbers of generations.	HU03
11944	The mine pits will eventually fill with water. The north wall of the East pit is Virginia Formation. It is well documented that this formation contains high sulfates and other heavy metals. This fractured mineralized wall will leach acid and metals. The mine pits will eventually discharge, carrying contaminated pit water to the wetlands and the Partridge River. "The East Pit, West Pit, and Category 1 Stockpile are permanent features that would continue to provide solute-loading [metals and sulfate] for a minimum of 200 years." (SDEIS)	WR029, WR173
13373	The Minnesota Department of Natural Resources is lying to the public. PolyMet's NorthMet Project will require perpetual water treatment for its solution. This project, by law, must not be permitted.	WR195
15076	A study of the cumulative health effects from proposed sulfide mining and from taconite mining industries is missing in the SDEIS.	HU01
15077	The massive amounts of coal-fired electrical power, in light of related documented health issues, are missing and must be addressed.	AIR02
15079	the PolyMet SDEIS is missing ...cumulative impact studies of the Duluth Complex. The Duluth Complex is the area where a comprehensive environmental impact study needs to be done of all foreseeable sulfide mining, a sulfide-mining district...."Past, present, and reasonably foreseeable future actions" must be addressed completely	CU01, CU04
15080	Protect our children from further harm; there is no excuse that our fish are so contaminated with methyl mercury that a pregnant woman cannot eat them. There is no excuse that we have 10% of tested newborns with unsafe levels of mercury, likely resulting in diminished IQ. We must have cumulative impact studies, health studies	HU01
15081	Incorrect water flow modeling and incorrect assessment and modeling of contaminated, uncollected seepage makes this SDEIS unacceptable and it must be rejected.	WR003, WR017, WR018, WR049, WR189

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Carla Arneson (9536)	
15082	perpetual water treatment of our waters... is delusional on an environmental, operational, and economic level. Minnesota Statute states that a mine needs to be “maintenance free” at closure. To permit a project that the Co-lead agencies know cannot meet those criteria before it begins is a flagrant disregard of laws put in place in the public’s best interest. No Action Alternative is the only reasonable (sane) choice.	PER04
15084	Thousands of exploratory boreholes are already punched into the Duluth Complex and acting as conduits to our aquifers. Full-scale mining would send contaminants through the numerous faults and fractures (Copper-Nickel Study) and through the exploratory boreholes (many of which are unsealed or partially sealed).	CU02, CU11, WR010
15086	The LTV Steel Mining Co. plant and tailings basin at Hoyt Lakes has long drained its toxic waste to the St. Louis River watershed, and will continue to do so ... if PolyMet's NorthMet sulfide mine is permitted and reuses the LTV site for its massive toxic sulfide mining waste, with correspondingly massive calcium issues. Any increase in mining-related calcium releases to the system would increase the calcium available to zebra mussels.	AQ17
15089	The PolyMet SDEIS does not address loss of habitat and other impacts to Minnesota’s moose population by proposed sulfide mining	WI01, WI02
15433	"Minimum" had been cut, no longer delineating water treatment of "200 years at the mine site and 500 years at the plant site."Water treatment "for the very long term" became "long term." But one telling word survived, it concerned closure, and "transitioning from mechanical to non-mechanical/passive water treatment if or when proven effective." (SDEIS 3.1.1)	NEPA09
15437	During the April 9, 2013 panel discussion on nonferrous mining at the University of Minnesota-Duluth, MDNR Commissioner Tom Landwehr was asked whether the MDNR could issue a permit if it received a plan that called for long-term treatment. "Landwehr replied that treatment would need to be passive (such as water being filtered through a wetland) or not active at closure." (Cook County News Herald)	PER04
15439	Minnesota Administrative Rules concerning closure and postclosure maintenance (Minnesota Rule 6132.3200) states: "The mining area shall be closed so that it is stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact other natural resources, and is maintenance free." Perpetual water treatment is not maintenance free.	PER04
17704	If a bonding company does take on the risk of PolyMet or any other sulfide mine, PolyMet's SDEIS indicates there is a high probability that sulfide-mining contamination of surface water, sediments, ground water, and soil cannot be cleaned up in our lake district. Money cannot fix the unfixable - or replace the irreplaceable.	FIN10
17705	Sulfide mining in water-intensive areas has never been done without contaminating surrounding waters. Reverse osmosis is not “new” technology. It had been around for decades. If it could solve water contamination caused by metal mining it would have done so by now. Reverse osmosis cannot even solve water pollution at Minnesota’s taconite mines, which are operating under variances or expired permits.	WR143
17706	In Minnesota, mining permits are often written to deliberately leave out or weaken important contaminant parameters.	PER06
17707	The company neglects to point out that reverse osmosis will only treat part of the contamination from PolyMet’s proposed NorthMet Project, only treating discharge water at the end of the 20-year operation; it will not treat water going to the tailings basin for the proposed 20 years of production. As multiple types of waste chemicals concentrate in the basin (alleged in the proposal as a closed system) the treatment will become less effective, (e.g. 80% of 1000 ppm leaves 200 ppm, 80% of 2,000 ppm leaves 400 ppm). Keep in mind that many of the stream standards are in the parts-per-billion level.	WR143

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Carla Arneson (9536)		
17708	Reverse osmosis for PolyMet is not scientifically defensible. No testing has been done that is relevant to the actual mining and treatment situation for this application. No substantive data indicates that reverse osmosis will work fully to meet water-quality standards. In PolyMet’s case reverse osmosis was tested, but using what? It is unclear just what was run through the reverse osmosis system. Was wastewater used from its mineral extraction bulk sample testing? Compared to what PolyMet proposed to actually run through a full-scale treatment system, the “real” water will be much worse. Pre-filter plugging and reject water will be major issues. PolyMet underestimates the quality and quantity of input water that will need to be treated.	WR143, WR176
17709	All filtration systems (reverse osmosis and nano-filtration) require backwashing (backflushing) the pre-filters and the final filter. Since the pre-filter waste is a concentrate of the input wastewater, it will likely be aquatically toxic. Depending on the quality of the input water, up to 40% of the input water can be this reject back flush. The proposal is to return reject waster to the tailings basin. Sludge may go to a landfill, but is untested and likely to be aquatically toxic. Precipitation (rain, snow) will impact the hydrometallurgical residue facility (solids dump). The solids dump will cause leaching. Since the waste particles will be similar to silt or clay, treatment of the solids to prevent toxic leachate will be difficult if not impossible to treat into perpetuity.	HAZ02
17710	PolyMet takes only a small number of samples in its environmental testing processes, which does not represent what will occur in the real world. The heterogeneous mixture of rocks is not consistent and small samples cannot reflect anywhere near actual field conditions. This can be demonstrated with field data from both the Dunka mine and MinnAmax, which has demonstrated that water quality ia much worse than the small-scale lab testing that has been performed. This difference is caused by the heterogeneity (disseminated) nature of the entire deposit; one spot will have lots of sulfur, another spot will have little sulfur. They have only taken a very limited number of environmental laboratory samples in this heterogeneous deposit. In comparison, to evaluate the economics of the minerals, they report taking thousands of analyses to define the 1% of the minerals that are of economic interest.	PD15
17711	The current PolyMet mine is designed for the 100-year storm (a 1980s statistical description of a 1% chance of a very high precipitation storm); given climate change, this design is insufficient. Scientific studies suggest the facility must be designed to withstand a 500-year storm, because the 1980s’ 500-year storm is no occurring almost as often as the 100-year storm. For PolyMet this is critical; it must be able to manage hugh volumes of wastewater. If the storage and/or treatment system is insufficient, untreated wastewater overflows to the nearest stream partially treated or untreated.	WR180
<b>Sender Name (Submission ID)</b> Carla Johnson (13351)		
13738	PolyMet is going to pollute the water for 500 years	FIN01, FIN11
<b>Sender Name (Submission ID)</b> Carlos I Vasquez (54210)		
17652	I feel that if a mine is built by the boundary waters, by people with big names and lots of money and power well feel like it’s okay to destroy beautiful places such as the boundary waters just for a quick buck.	SO02
17653	I feel that there is a high chance that the water will become polluted and that the poor innocent fish well die.	WR113
<b>Sender Name (Submission ID)</b> Carlsons (42936)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Carlsons (42936)		
9877	The mining industry has provided a good living for our parents and generations of other northern Minnesotans. PolyMet will provide an opportunity for satisfying and productive careers for many young people who wish to be able to remain on the Iron Range and raise their families in northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Carly (9474)		
1671	PolyMet has stated [the NorthMet Project] would create ~300 jobs (as a guess)... PolyMet is an international business, so it is very possible that people they hire will not be from Minnesota.	SO06
1672	the project would be for ~20 years...PolyMet says it will take 500 years to clean up... what company would even last 500 years, let alone follow through with their clean-up in a foreign country in which they only got 20 years of product out of?	FIN01
1673	with that number [500 years to clean up], PolyMet either... 1)has no idea how long it would take to clean up, but they know this is highly toxic so it certainly will take a long time...2)they really know it would never be able to be cleaned up but instead of saying “Never or Forever”, they just threw out a big number instead.	WR035
1674	[with that number [500 years to clean up], PolyMet]... don’t care what number they say because they aren’t going to clean it up and why would they, it’s not even their country to care about.	FIN01
1675	the St. Louis River Watershed is the largest watershed in Minnesota. The St. Louis River is the largest U.S. river flowing into Lake Superior (the largest freshwater lake in the world). The health of our entire ¼ of the state [could be impacted by the NorthMet Project].	WR111
1676	The negative impacts of sulfide mining would turn this Minnesota gem [Jay Cooke State Park] into an undesired wasteland.	CU11
1677	[The NorthMet Project could have] lasting negative, irreversible impacts [including] jobs [lost] across a wide variety of job fields, [and] many will lose their way of life.	NEPA09
1678	Due to its negative consequences on both the environment and on the citizens of Minnesota, sulfide mining (PolyMet project) is indubitably unethical [because it jeopardizes and damages the overall well-being of the greater biotic community].	HU03
<b>Sender Name (Submission ID)</b> Carly Coulson (11332)		
278	Our clean water resources are more valuable in the long-term than the short-term economic benefits of the mine.	SO01
279	A 500 year commitment to mine waste water treatment is far too great.	PD01
1607	I oppose the planned PolyMet Mining Inc Project because the location is within the Lake Superior watershed and puts our clean water resources at risk.	WR111
1608	Our clean water resources are more valuable in the long-term than the short-term economic benefits of the mine.	SO01
1609	The 300 or so jobs created by the mine is such a small number in comparison to the high environmental and regulation risks that will go on for 500 years	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Carly Coulson (11332)		
1610	The State of Minnesota should not trust that the PolyMet Mining Inc company will take it's environmental responsibilities seriously. The project has in it's planning, investors, and management team individuals with very poor records regarding environmental damage. Bill Williams is being charged with Crimes Against the Environment in Spain. Tony Hayward was responsible for the BP disaster in the gulf. These leaders should not be trusted to operate such a high risk mine in Minnesota!	PER02
<b>Sender Name (Submission ID)</b> Carlyle Conrad (11543)		
2497	What is the guarantee that this mine will not pollute – and who will pay if it doesn't? Is the enough money in place to cover this situation at the front end – Obviously the mine is being proposed to create jobs – BUT if they weren't going to get a return they wouldn't open the mine!	FIN01, FIN05
2498	How can we expect an already fragile watershed, St. Louis River on into Lake Superior to take more abuse and pollution from another open pit mine. Wetlands, wildlife, plants, water quality and flow are already compromised. Why would we continue this pattern into the future?	WR115, WR195
2498	How can we expect an already fragile watershed, St. Louis River on into Lake Superior to take more abuse and pollution from another open pit mine. Wetlands, wildlife, plants, water quality and flow are already compromised. Why would we continue this pattern into the future?	AQ05, WR109, WR123, WR156
<b>Sender Name (Submission ID)</b> Carol A Sandstrom (57246)		
17373	By removing our minerals you are also causing all these sink holes.	GT09
<b>Sender Name (Submission ID)</b> Carol A. Overland (42955)		
12646	the SDEIS has not adequately addressed the issues raised in the EPA letter date stamped February 18, 2010, particularly in the area of Water Quality..."EPA determined that the project will result in unacceptable and long-term water quality impacts, which include exceeding water quality standards, releasing unmitigated wastewater discharges to water bodies (during operation and in the post-closure period), and increasing mercury loadings into the Lake Superior watershed."	WR111
14955	It is essential that this project provide the financial assurance necessary to address the full spectrum of potential impacts and harms, not just after closing in 20 or more years, but sufficient to provide for remediation and mitigation in the event the company is sold or goes bankrupt – Minnesota and US taxpayers and our environment must not be left holding the bag for environmental damage accompanying mining.	FIN01, FIN11
14956	the “majority of the surface land at the proposed Mine Site is part of a single contiguous area of publicly owned land managed by the USFS.” Because this is public land, the DEIS must address adequate compensation for this land to the USFS to compensate not only for impacts, but also for opportunity benefits and a percentage of the profits.	LAN03
14957	The DEIS does not, and must, adequately address cumulative impacts, yet as noted, “the analysis does not address the cumulative effects of the Proposed Connected Actions.” Cumulative impacts that should be address include both the likely potential for expansion of PolyMet mining1, and that of adding the impacts of PolyMet to the many mining impacts scarring the Range, and of the many projects now proposed and now in permitting and construction.	CU02, CU03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Carol A. Overland (42955)		
14958	Another type of cumulative impacts that is not adequately addressed is that of impacts to supply the electricity to power the operation. The cumulative impacts section ... assumes the Mesaba Energy Project would be built, as although it was granted a site permit for the western site near Taconite, it was denied a Power Purchase Agreement by the Minnesota Public Utilities Commission...where will electricity come from and what will the impacts be? Coal generation or other generation with environmental impacts? The impacts of transmission lines to bring electricity to the project? The impacts of generation and transmission lines on air quality, haze, forest fragmentation, and other issues are not addressed.	AIR02, CU15, PD39
14959	although PolyMet is one of the largest producers of particulate emissions, it is “not considered to be a concern” under Minnesota’s Regional Haze SIP. However, that does not mean that this cumulative impact of particulate matter should be dismissed. See DEIS 6-83, and also note conclusion that regarding SO2 and NOx “additional mitigation or reductions may be necessary to reach the 2018 goal” and that the 2018 goal would not be met.	AIR08
14960	The alternatives review is inadequate. The alternatives review of the DEIS erroneously presumes that the project is needed, and the PolyMet framing is adopted for the context of alternatives, falsely limiting alternatives under consideration. As noted in “RECYCLING OF NON-FERROUS METALS—AN ALTERNATIVE TO SULFIDE MINING IN MINNESOTA, recycling has potential to meet the need for non-ferrous metals and should be considered. The alternatives listed were nearly entirely “eliminated” resulting in an inadequate alternatives analysis.	ALT09, ALT21
14961	In the section on climate change, the EIS addresses only the direct impacts, and not the indirect impacts, such as coal generation for electricity to power the plant, which should be considered	AIR01
14962	Section 8, regarding Major Differences of Opinion is a crucial part of the DEIS, and the position summaries of the stakeholder Tribal Cooperating Agencies in all 18 categories, and Appendix C, Tribal Position Supporting Information, should be given great weight.	NEPA12
<b>Sender Name (Submission ID)</b> Carol and Doug Damberg (43020)		
16947	The technology that mining interests claim will protect water quality is untested and unproven. It’s just not possible that the proposed mine, particularly with the anticipated sulfide impacts, can be put in place without significant long-term environmental damage, particularly to surface and ground water quality.	WR107, WR108, WR128
16948	The Boundary Waters Canoe Area Wilderness is a national treasure. It is one of the most pristine and unique locations not just in the lower 48 states but anywhere in the world. There’s nothing else like it and once it is trashed, it can’t be repaired, fixed, or mitigated for.	VEG10
16949	[The] associated social impacts [of the PolyMet mine] could significantly alter the fabric of significant parts of northern Minnesota, and not for the better...[There are] significant social impacts of transient workers – folks who work hard but play hard too and don’t have a vested interest in the long term viability of the area...and it’s not hard to see the complex social issues of both the boom, and the bust, on the local economy and lifestyle	SO02
<b>Sender Name (Submission ID)</b> Carol Atchley-Mashuga (19826)		
9950	[T]he PolyMet NorthMet SDEIS plan...will have a damaging and permanent impact on the environment.	NEPA09
<b>Sender Name (Submission ID)</b> Carol Bogart (27021)		
16720	Please do not issue permits that will allow this threat to one of the world’s largest freshwater resources. Please also initiate testing of feeder rivers to Lake Erie such as the Sandusky River so as to ascertain the impacts of upriver discharges to the river.	WR081

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Carol Bolin-Abrahamson (10743)		
10594	PolyMet has stated that it may not have insurance available to cover liabilities for environmental pollution; (and the pollution would be for OVER AT LEAST A 500 YEAR PERIOD).	FIN01
<b>Sender Name (Submission ID)</b> Carol Brandenburg (47177)		
8536	Water pollution Fresh water, the world's most precious natural resource, is now threatened in many places....Once our priceless Boundary Waters area has been destroyed, it can never be restored.	WR111, WR195
8543	Negative impact on three separate watersheds, and all wildlife in the area	WI01
8545	Climate change due to carbon emissions	AIR01
8547	Serious health threats, including cancers and respiratory ailments	HU05
8549	Mercury poisoning People who live in the Superior Basin are already exhibiting dangerous levels.	MERC03
8556	Devastating aesthetic impact... Loss of northeastern economy based on eco-tourism	SO02
8559	Loss of wilderness jobs Thousands of people depend on ecology and wilderness for their wages (compared to an estimated 300 mining jobs that may last a couple of decades	SO02
8562	Superfund cleanup to the tune of billions of dollars for hundreds of years	FIN05
<b>Sender Name (Submission ID)</b> Carol Dallman (18278)		
13990	I am here to oppose the mining because I do not believe that we have done enough to recycle and conserve resources and now is not the time to mine an area that has such potential for long-term environmental effects.	NEPA06
<b>Sender Name (Submission ID)</b> Carol Frechette (50312)		
11006	Minnesota should not be an experiment for untested technologies.	PD32
12578	The PolyMet NorthMet SDEIS is an open-pit sulfide mine that will ruin ground water quality for hundreds of years, if not forever and must be rejected!	WR195
<b>Sender Name (Submission ID)</b> Carol Gisselquist (17697)		
2119	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for--information that is necessary to evaluate the environmental effects of this proposal.	WR035, WR128
2120	More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering. The SDEIS proposes no mitigation for the indirect wetland impacts.	WET01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Carol Gisselquist (17697)		
12121	...sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
12122	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> carol haasl (7631)		
812	No one address out responsibility to provide a way for us to acquire the metals we need in a responsible manner. We live in a world economy and will get the things we want. Is it ok to buy the copper from a source that has no environmental controls or concerns as we do. Are we responsible for the damage that happens in another part of the world. I believe that you cant have it both ways, if we choose to use the things PolyMet will provide we need to find a way to let them produce them, or continue to buy them from questionable sources.	ALT16
<b>Sender Name (Submission ID)</b> Carol Hedberg (4185)		
9874	Minnesota needs to focus on -- and invest in -- our pristine spaces and relatively unpolluted fresh water as our biggest asset!	WR195
<b>Sender Name (Submission ID)</b> Carol Iwata (45040)		
17277	This revised draft (SDEIS) is still very inadequate and makes optimistic promises based on speculation....	NEPA09
17278	[The SDEIS has] no consideration of alternate methods (like underground mine, putting liners under the waste dumps)....	ALT01, ALT07
17279	[The SDEIS offers] no guarantees of who pays for even routine monitoring/treatment after mine closes...PolyMet says they will guarantee the water treatment for "however long it takes." But PolyMet is a shell company. Their chief investor, Glencoe Xstrata, is not on the hook for any guarantees.	FIN01, FIN02, FIN11
17280	The computer model for treating wastes and handling pollution is based on poor data, not even good science: sparse water data from dry years. (MN has had 4 "100-year" floods in the last 9 years.)	WR052, WR165, WR189
17281	Knowledge about this bad [water modeling] data has been available to the DNR for years. Native scientists (from the Great Lakes Indian Fish and Wildlife Commission) have been trying to draw it to their attention, and have very different data.	PD03
17282	Taxpayers will end up paying for environmental damage. The single biggest Superfund costs have been cleaning up sulfide mining.	SO01
17283	The Iron Range needs jobs. But these mining jobs come at too high a cost. There are other jobs that depend on a clean natural environment, such as for tourism, hunting, fishing etc. these jobs would be lost.	SO02
17284	PolyMet is just the first of the companies that will be mining in this environment. If they are granted a permit, there are numerous other copper-nickel projects targeting the BWCA watershed) that are waiting for the outcome of this process.	CU04
<b>Sender Name (Submission ID)</b> Carol L Weber (50602)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Carol L Weber (50602)		
16086	The SDEIS and the sulfide mine project are based on seriously flawed, unrealistic and inconsistent assumptions, not accurate science.	PD03
<b>Sender Name (Submission ID)</b> Carol Mason Sherrill (58059)		
19880	We can live w/o money, politics, water - we CANNOT live w/o our water, creatures, air, land	SO01
<b>Sender Name (Submission ID)</b> Carol Michealson (42869)		
8948	[PolyMet] will try to set aside money for clean up, they say. However, I'm mindful of the coal company in West Virginia where lax regulation allowed it to badly pollute a river and then file for bankruptcy. This is a common practice with mining companies. Then the State will be left with the bill of clean up, and it won't have the money. It will have to come from the education fund or the highway fund or the state parks fund, or possibly not happen at all.	FIN01
8948	[PolyMet] will try to set aside money for clean up, they say. However, I'm mindful of the coal company in West Virginia where lax regulation allowed it to badly pollute a river and then file for bankruptcy. This is a common practice with mining companies. Then the State will be left with the bill of clean up, and it won't have the money. It will have to come from the education fund or the highway fund or the state parks fund, or possibly not happen at all.	FIN01, FIN05, FIN10
8949	While I think it is very important for people to have good jobs, I have to believe that good jobs for a small number of foreign workers that will work for [PolyMet] for about 20 years is not worth polluting Minnesota's waters with sulfide and other pollutants for hundreds of years...The amount of really good fresh water on the planet is less every year. We must do what we can to save our water and the beauty of country for generations to come.	SO06, WR195
8949	While I think it is very important for people to have good jobs, I have to believe that good jobs for a small number of foreign workers that will work for [PolyMet] for about 20 years is not worth polluting Minnesota's waters with sulfide and other pollutants for hundreds of years...The amount of really good fresh water on the planet is less every year. We must do what we can to save our water and the beauty of country for generations to come.	SO06, WR195
18096	our lakes and forests that have been here for thousands of years wherepeople have fished and swam and sailed. The amount of really good fresh water on the planet is less every year. We must do what we can to save our water and the beauty of country for generations tocome.	GEN01
18096	our lakes and forests that have been here for thousands of years wherepeople have fished and swam and sailed. The amount of really good fresh water on the planet is less every year. We must do what we can to save our water and the beauty of country for generations tocome.	GEN01
18097	We can find a way to recycle all the minerals in our electronics to be used again. Please say No to Polymet and other mining companies.	NEPA06
18097	We can find a way to recycle all the minerals in our electronics to be used again. Please say No to Polymet and other mining companies.	NEPA06
<b>Sender Name (Submission ID)</b> Carol Neumann (39621)		
6749	We cannot undo, either financially nor physically, the death of fish, the extensive pollution of our water (from one of the largest bodies of fresh water in the world), nor can we unpollute the air.	AIR11

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Carol Neumann (39621)		
13480	Our communities in the great north country of Minnesota should not perish at the hands of greed, backwards thinking in the mining industry, or a bad decision by our lawmakers.	SO02
<b>Sender Name (Submission ID)</b> Carol Reamer (24316)		
10325	If [Polymet] can not provide PROOF of Zero pollution, both now and future, from their project it must be rejected. The requirement of providing proof and reimbursement of all governmental cost to verify their proof is valid must be 100% their responsibility.	FIN01
<b>Sender Name (Submission ID)</b> Carol Reschke (42931)		
8321	PolyMet’s NorthMet Project is anticipated to be the first of several proposals for sulfide mining of precious metals in northern Minnesota. The SDEIS lists eleven projects they consider “Speculative Actions” in section 6.2.2.1.21 that “have not been mapped or considered in the cumulative analysis”...I suggest that a [Generic Environmental Impact Statement] for sulfide mining on the Iron Range would be an appropriate document for addressing cumulative impacts of multiple mining projects currently being planned.	CU19
8349	My...concern is that numerous position statements and comments submitted by the tribal cooperating agencies have not been adequately addressed in the [NorthMet] SDEIS...the cooperating tribal agencies’ substantive comments and discussion of these MDOs are buried in Appendix C	NEPA12
8375	The 1854 Treaty is federal law. When the land in the NorthMet Project area was ceded to the United States, the Ojibwe chiefs who agreed to the treaty wisely reserved rights to hunt, fish, and gather in the ceded lands. If the MNDNR, USACE, and USFS do not thoroughly address the position statements of the tribal cooperating agencies presented in Appendix C, it seems that these co-lead agencies would be vulnerable to lawsuits aimed at protecting tribal treaty rights reserved in the 1854 Treaty. ... it would not be prudent to allow our state and federal agencies to be vulnerable to such treaty rights litigation.	NEPA12, PER08
8387	I agree with the cooperating tribal agencies that the analysis of cumulative effects should include the entire St. Louis River watershed. Considering the investment of federal funds from the Great Lakes Restoration Initiative (GLRI) in the removal of beneficial use impairments in the St. Louis River AOC, it is prudent to consider the cumulative effects of mining projects in the headwaters on the sensitive areas we are working to restore in the St. Louis River AOC.	CU01
8392	I also agree that if some of the hydrology models (e.g. GoldSim) do not accurately predict existing water quality conditions, then it doesn’t make sense to trust the predictions of those models for evaluating cumulative effects.	WR049
8404	I agree with GLIFWC [Great Lakes Indian Fish & Wildlife Commission] that an ecologically significant amount of spillage from rail cars could occur into streams, wetlands, and their watersheds.	WET11, WR151
8420	The SDEIS does not adequately incorporate the findings of recent research on the influence of sulfates and sulfides on the growth of wild rice. The 1854 Treaty Authority accurately notes that research and evaluation of the sulfate surface water standard are ongoing and that application of the standard may change.	VEG04, WR152
8441	In light..of the MPCA research on the wild rice sulfate standard, the SDEIS discussion and models used in the evaluation of environmental effects and cumulative effects need to address the sediment pore water concentrations of sulfides, concentrations of iron in affected sediments, and relationships to concentrations of sulfates in surface and ground water flowing into the St. Louis River watershed.	VEG04, WR152, WR159
8451	Site-specific [sulfate] standards may be needed for some waters. Considerable data suggest that in some cases the development of a site-specific standard would be protective of wild rice production. This is most likely to occur in waters where the sediment iron is elevated.	VEG04, WR152

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Carol Reschke (42931)		
8457	The MPCA [Minnesota Pollution Control Agency] Study and research commissioned by the Minnesota Chamber of Commerce (Fort, 2013) both show that sulfate is not directly toxic to wild rice. However, sulfate in the surface water can be converted by bacteria to sulfide in the sediment porewater of the rooting zone of wild rice...Further analysis is needed to explore the potential for adopting a sediment porewater sulfide standard to replace, complement or work in conjunction with a sulfate standard.	VEG04, WR152
14468	I agree with the cooperating tribal agencies that the loss of sites identified by the Minnesota County Biological Survey (MCBS) as sites with “High Biodiversity Significance Values” needs to be addressed more adequately. These sites include headwater wetlands that are likely important for maintaining water quality within the St. Louis River watershed.	VEG02
14476	as a resident of Lake County Minnesota, I think we need to be assured that any new mining projects will avoid polluting our surface water and aquifers	WR115
<b>Sender Name (Submission ID)</b> Carol Selmason (57216)		
17152	Until they can prove otherwise, sulfide mining is a destructive process.	GEN01
17153	The permanent rape of our environment is not worth the profit of a few (Big Business). We all need jobs, but not at such a price.	SO01
17154	Let them prove they can mine safely, until then sulfide mining has no business in Minnesota.	PER35
<b>Sender Name (Submission ID)</b> Carol Smith (52228)		
8038	The location of the anticipated mining is too close to the BWCA, Superior National Forest, and other natural wilderness.	WILD02
8042	The inevitable water pollution, the loss of the natural land, the mitigation of wildlife and fauna is too high a price to pay for any benefit from mining -- including jobs the opposition argues for. Once the land is compromised, it is lost forever.	SO01
<b>Sender Name (Submission ID)</b> Carol weber (47291)		
11390	The risks of sulfide mining are unacceptable as they place the Boundary Waters Wilderness Area and the Great Lakes in serious jeopardy. We cannot afford to lose the multifaceted Life that these sources hold.	GEN01
<b>Sender Name (Submission ID)</b> carole blaska (11889)		
13611	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	HU01, WR041, WR115, WR189
<b>Sender Name (Submission ID)</b> Carole Megarry (47795)		
11616	I question whether the [SDEIS has adequately addressed] containment of leached chemicals because the area is more difficult [for containment] than in a drier environment...	WR156, WR189
11617	I question, has the SDEIS adequately considered damage to fish, birds and other wildlife as well as to the wild rice crop. This is an area where we already have fish advisories due to mercury, and this proposal would only increase the levels of mercury.	MERC02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Carole Megarry (47795)		
11621	PolyMet says it can treat the contaminated water, and that it might have to do this for 250 to 500 years after the proposed 20 year operation ceases. ...some scientists believe that treatment might in fact be necessary far longerWhat is the worst case? Is it even determinable?	WR038, WR202
11622	I question the extent to which the jobs created would be filled by local residents rather than technicians drawn from other mining operations. However, even if the industry truly does provide 300-400 jobs a year for 20 years for local residents, is that worth devastation of the area and destruction of the existing tourism businesses?	SO01
<b>Sender Name (Submission ID)</b> Carole Zanardi (44365)		
10378	Could there be a positive use for the sulfide acid that might be created? Could it some how be harvested and used in industry or in consumer products so that it would be reclaimed from the start instead of being wasted? Kind of like motor oil is a waste product of making gasoline	HAZ03
<b>Sender Name (Submission ID)</b> Carolyn Chalmers (39258)		
5500	The permit should require the companies to pay for independent experts to do monitoring if DNR's resources and independence fail the test.	PER03
5502	I have grave concerns about this project's potential permandent destructive impacts on Minnesota's natural resources and public health.	HU03
5503	I also have grave concerns about the projects delivery on the economic benefits it promises.	SO10
5505	I have grave concerns about relying on the slow judicial process to remedy pollution when it is discovered. There needs to be agreement on an expedited process so that pollution is stopped immediately.	PD01
16766	I have grave concerns about relying on DNR to monitor. DNR monitoring resources are not guaranteed and it's independence from the companies'influence not assured...The permit should require the companies to pay for independent experts to do monitoring if DNR's resources and independence fail the test.	PER06
16767	I have grave concerns about relying on the slow judicial process to remedy pollution when it is discovered. There needs to be agreement on an expedited process so that pollution is stopped immediately.	PD01
<b>Sender Name (Submission ID)</b> Carolyn Crooke (6067)		
1010	going to let them dig massive holes in the ground, destroy wide swaths of wetland, and count on them to treat the water for hundreds of years after? Let them create another Superfund site?	WET24, WR115, WR195
1011	I get that we need jobs but not at the cost of unacceptable, irreversible environmental impacts.	SO01
1013	According to the EPA, hardrock mining is the country's most toxic industry, and 40 percent of our nation's Superfund sites are devoted to cleaning it up. How will PolyMet's mine be different? The SDEIS supplies no answers.	PD01
1014	And the mine site is on Superior National Forest, where the Forest Service recognizes that open-pit mines are prohibited. Everybody knows the land exchange is just a sham and won't be in the public interest.	LAN01, LAN02
1051	The SDEIS fails to demonstrate that the proposed PolyMet mine will comply with all environmental laws and that it will not result in unacceptable environmental impacts -- and so it should be rejected.	NEPA09

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Carolyn Merrill (54765)	
19244	As an elderly person (86) I am especially vulnerable to the environmental degradation Polymet's new mine would cause.	HU03
<b>Sender Name (Submission ID)</b>	Carolyn Porter (42816)	
7173	It seems impossible to believe that PolyMet will be able to build and maintain containment vessels that will prevent water pollution. Here are the specific issues I would like the DNR to address:•If water treatment is required for 200, 500, or more years, how will those costs be calculated? Will water treatment plans include contingency plans? What about spills, ruptures, or pollution discovered decades from now?•How will the DNR ensure that taxpayers will not be liable for short-term clean-up costs?•Why is the DNR leaving issues of Financial assurance until later in the process? That seems irresponsible.•If it is projected that 500 years of treatment will cost billions of dollars (\$10m/per year x 500= \$5 Billion dollars!) how can we ensure MN taxpayers are not going to pay this!	FIN01, FIN05, FIN10, FIN13
<b>Sender Name (Submission ID)</b>	carriageguy@yahoo.com (46294)	
8905	It is nearly impossible to obtain guaranties sufficient to protect future generations from the damage and expense of the resulting polution. Requiring deposits sufficient to forstall future environmental damage will probably scare investors away.	FIN01
8907	Scare them away, or make them pay the exorbitant sums necessary to protect our land and non-mining livlihoods.	FIN01
<b>Sender Name (Submission ID)</b>	Carrie Evans (44282)	
11961	By allowing Polmet to extract the metals, that are critical in so many key areas of our everyday life, I feel that not only will the environment be protected to a greater extent but it will also benefit the state of MN economically. ...If we do not allow Polymet to mine in MN we lose economically and environmentally.	SO10
11963	I believe that Polymet has shown that they will mine the metals in a way that is the most environmentally safe for air, water and land.	PD28
<b>Sender Name (Submission ID)</b>	carrie shanahan (40956)	
8227	500 years to clean up the toxic mess [the NorthMet Mining Project] would leave behind? Too much risk. I don't trust these people to clean up ANY mess they make.	FIN01
<b>Sender Name (Submission ID)</b>	Cary Anderson (46079)	
10747	We have an amazingly beautiful state and very unique area in all the world that is the Boundary Waters Canoe Area Wilderness. ... A multinational resource extractor ...wants to dig gigantic pits there, to take out copper and other metals from rock, ship it out of the country, and leave sulfuric acid in it's place, fully expecting and admitting pollution cleanup will be necessary for 200 years in the surrounding area, and 500 years on the site. WHAT?!! What in hell's name are you considering here?	WILD02
10758	[Glencore Xtrata] have a terrible record of labor rights violations. These jobs they promise do not take that into account, nor account for how long they would even be there, or who takes care of workers when they get illnesses from the mine.	HU04
10760	I don't want large chunks of watershed in northern MN to be [Glencore Xtrata's] quick profit and my sulfuric acid waste dump. Minnesotans will be paying for the clean up in so many more ways than just \$\$ for as long as we are living and our descendents.	HAZ03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Cary Anderson (46079)		
10761	How much fresh water is pumped up from the ground to be used in the mining process? Lots! We don't have any to spare.	WR181, WR182
10763	Copper mining is so much different than the traditional iron mining that has been happening in MN. The difference is sulfuric acid.	HAZ03
10764	Fewer than 20% of computers are recycled in the U.S. Why mine when we can recycle? Because Glencore Xstrata wants gobs of \$\$.	NEPA06
13726	•The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Casandra Ladas (17273)		
9353	Support our state by not putting out all the local boundary waters camps and business' as well as the beauty where we can't find anywhere else in our state.	SO02
9354	Lake Superior is the prominent feature of Minnesota...It's one of the only places that has been untouched by humans for years and the beauty which has grown as a result of that is marvoulous. Please don't take away something we value and can never get back.	LU04
12821	I want to be able to take my children to her glistening lakes and it's completely unfair of you to take that oppportunity away from everyone so that there can be a profit for some billion dollar company	LU04
<b>Sender Name (Submission ID)</b> Casey Betts (11532)		
17112	Building this plant will help me and my brother Ironworkers provide for our families.	SO10
17112	Building this plant will help me and my brother Ironworkers provide for our families.	SO10
<b>Sender Name (Submission ID)</b> Casey Lebens (9484)		
175	I am scared the boundary waters will be an unsafe place to bring my children when they grow up.	WR111
946	Glencore Xstrata, the primary owner of PolyMet, which [reportedly] will buy the rest of PolyMet once all the permits are in placefor the copper mine in northern MN. So, who is Glencore Xstrata?Glencore Xstrata is a Swiss-based firm known for its ruthlessness. It is the fourth-largest mining company in the world. It controls 50 percent of the world's copper through its ownership of more than 100 mines around the world, and its commodities trading operations.Glencore Xstrata has run up a long list of labor and environmental abuses, including 58 mining fatalities between 2008 and 2010, over twice the number reported by any other mining company over that period.Just in 2012, their environmental and labor record includes dumping raw acid in waterways in the Congo, failure to provide a vapor barrier to keep an acid mist from descending on 3,000 people in Zambia, utilizing child labor as young as 10 years old in mines in Congo, and causing environmental damage at its McArthur River mine in Australia.	PER02
<b>Sender Name (Submission ID)</b> cass kane (6716)		
1106	What is Polymets plan 2 keep sulfide pollution from the groundwater table?	WR129

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Cat Thompson (40916)		
7528	I still do not understand why, in a time when fresh water is becoming more and more scarce, we are considering allowing a 20 year short term project to take precedence over clean water.	WR195
13745	* The SDEIS doesn't allow members of the public to find or check on the references claimed to support the SDEIS conclusions. The SDEIS has a long list of references, but they were not made available to the public. How can we tell if the conclusions in the SDEIS make sense?	NEPA07
<b>Sender Name (Submission ID)</b> Catherine (42978)		
8770	THIS LETTER ALSO CONSTITUTES A MN GOVERNMENT DATA PRACTICES ACT REQUEST. PLEASE PROVIDE ALL DOCUMENTS, BOTH ELECTRONIC AND PAPER, IN THE POSSESSION OF THE MN DNR RELATING TO THE NEED OF THE NORTHMET MINE. PLEASE ADVISE ME IF THE COST TO REPRODUCE AND PROVIDE THE DOCUMENTS IN ELECTRONIC FORMAT WILL EXCEED \$25.	RFI01
15161	According to the U.S. Geological Survey, the U.S.'s need for copper has decreased. The Copper Development Association states the trend is towards recycling more copper than mining new and, copper scrap commands 90% the price of new. A study conducted by Yale University indicates only 50% of the copper in commerce today is recycled...the need to mine copper, especially in the U.S. is unwarranted	NEPA06
15162	Recycling copper, while still creating waste, will do so with less toxicity and environmental damage than mining. Given the robust recycling economy here in MN... a copper nickel mine is unnecessary.	NEPA06
15163	The alternatives suggested and reviewed during the EIS process indicate recycling of copper was not considered. Copper recycling is a relevant and viable alternative as it "improves environmental and/or socioeconomic benefits."	NEPA06
<b>Sender Name (Submission ID)</b> Catherine Anderson (15249)		
394	I firmly believe that we need to be good stewards of our natural resources, and one of the most precious of these resources is clean water. The stakes are just too high to gamble with our water supply, even if the chances are small of it being contaminated for possibly hundreds of years into the future.	WR129, WR195
1819	I am opposed to this mining proposal, as I believe that environmental consequences outweigh the benefits.	SO01
<b>Sender Name (Submission ID)</b> Catherine Coult (32643)		
13832	With our worldwide population on the rise and the shrinking of habitable land resulting from global warming, we must fight to maintain not only our own health but the increasing threat to the wonderful wild animals that increasingly must struggle simply to stay alive.	WI01
<b>Sender Name (Submission ID)</b> Catherine Hegg (36439)		
3800	I cannot help but think the costs to the environment outweigh the gains to the current economy.	SO01
14246	I understand the economic considerations in wanting to approve this project, but I think past history should teach us that once pollution occurs, it is extremely difficult and costly to clean it up - and the pollution could become an issue long after PolyMet ceases to exist as a company. Of course, then you and I would not be here either, so we can leave the mess to a new generation. we are still dealing with other mining pollution and significant pollution by 3M that no one even thought about.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Catherine Nicholl (39330)	
12799	Nothing is more precious than our water resources!	WR195
<b>Sender Name (Submission ID)</b>	Catherine Nicholson (58132)	
20022	We do need more jobs, but we need clean jobs that don't create a long term cost.	SO01
20027	What irks me is that this company is not even an American company. They'll make their money and the few jobs thelll provide Minnesotans and then leave and go bankrupt, leaving us with the mess.	FIN04
<b>Sender Name (Submission ID)</b>	Catherine Wright (11646)	
2354	I am very concerned that PolyMet's SDEIS does not address the increasing potential for natural disasters and how the toxic runoff would be contained during a flood, like we recently experienced in Duluth and the surrounding area, when eight to ten inches of rain fell within 48 hours.	WR180
2354	I am very concerned that PolyMet's SDEIS does not address the increasing potential for natural disasters and how the toxic runoff would be contained during a flood, like we recently experienced in Duluth and the surrounding area, when eight to ten inches of rain fell within 48 hours.	WR180
2355	It doesn't describe the planning done for storm events. It is necessary to dig for it in reference PolyMet 2013e, the Water Management Plan for the Mine on page 9. •Ponds for rail transfer and haul roads and Category 1 waste containment are designed for 100 year 24 hour events. •Sumps for Category 2/3 waste, Category 4 waste, and high sulfide ore sure are designed for 10 year 24 hour events. •Overburden storage is designed for 25 year, 24 hour event.	WR057, WR077, WR180, WR193
2355	It doesn't describe the planning done for storm events. It is necessary to dig for it in reference PolyMet 2013e, the Water Management Plan for the Mine on page 9. •Ponds for rail transfer and haul roads and Category 1 waste containment are designed for 100 year 24 hour events. •Sumps for Category 2/3 waste, Category 4 waste, and high sulfide ore sure are designed for 10 year 24 hour events. •Overburden storage is designed for 25 year, 24 hour event.	ALT01, ALT06
8574	In reference to PolyMet 2013e, the Water Management Plan for the Mine on page 9: In Hoyt Lakes, if you read the official NOAA National Weather Service Atlas, a 100 year rain is 5.69 inches and a 10 year rain is 3.54 inches. ... we are going to get heavier precipitation and more frequent severe weather...I am horrified that the SDEIS does not explain how PolyMet will deal with flooding. No information on what chemicals, and in what amounts, will be released if they plan wrong.	PD22
8574	In reference to PolyMet 2013e, the Water Management Plan for the Mine on page 9: In Hoyt Lakes, if you read the official NOAA National Weather Service Atlas, a 100 year rain is 5.69 inches and a 10 year rain is 3.54 inches. ... we are going to get heavier precipitation and more frequent severe weather...I am horrified that the SDEIS does not explain how PolyMet will deal with flooding. No information on what chemicals, and in what amounts, will be released if they plan wrong.	PD22
8575	This SDIES should be redone: I want to know how each waste area is going to be designed to prepare for heavy rains. I want to know what chemicals are in these wastes and what the impact will be, immediate and long term, should they overflow. I want to read or hear about several different designs costs and effectiveness, to protect our lands and wasters during severe rains, loss of power, tornadoes etc.	PD11
8575	This SDIES should be redone: I want to know how each waste area is going to be designed to prepare for heavy rains. I want to know what chemicals are in these wastes and what the impact will be, immediate and long term, should they overflow. I want to read or hear about several different designs costs and effectiveness, to protect our lands and wasters during severe rains, loss of power, tornadoes etc.	PD11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Catherine Wright (11646)		
8576	I sincerely as you to reject the PolyMet SDIES and deny permits that would allow this open-pit sulfide mine to harm Minnesota's precious fresh water for centuries, if not forever.	PER35, WR195
8576	I sincerely as you to reject the PolyMet SDIES and deny permits that would allow this open-pit sulfide mine to harm Minnesota's precious fresh water for centuries, if not forever.	AIR02, MERC16
<b>Sender Name (Submission ID)</b> Catherine Yamoore (42808)		
14596	Our water and wildlife are our community treasure. Do not allow PolyMet to destroy our treasure for its corporate profits!	WI01
<b>Sender Name (Submission ID)</b> Cathi Koenig (39696)		
6354	... we were told that they have some of the purest water in the country. As a Minnesota resident, I want to retain my RIGHT to experience this pristine environment. I also want my children and grandchildren to do this. This is our treasure, and I fear development will destroy it.	WR195
<b>Sender Name (Submission ID)</b> Cathy Gagliardi (16340)		
1486	The man who heads a Hedgefund project to open an alleged open pit mine in the Penokee Range south of the Bad River Ojibwe Reservation in Northern Wisconsin, and over the objections of all eleven WI tribes has been indicted. I hope MN looks into this too with the proposed Polymet Mine.	CR01
1566	I urge the powers-that-be in Minnesota to take a long, hard look at what toxins could possibly be in our Lake Superior someday. Especially since the safe long-term storage of metallic sulfide waste depends entirely on complete isolation from air and water.	WR111
<b>Sender Name (Submission ID)</b> Cathy Geist (47656)		
7710	I am extremely concerned about the long-term ecological impacts of this project and also the serious ecological "unknowns".	VEG10
7716	I am particularly concerned about the probability of not being able to successfully restore the impacted wetland areas...The required restoration in the proposed area seems more like an experiment than a known process.	NEPA09
7717	I am certain that many people have written about their concerns for the long-term effects on the waters of the area (including groundwater) and the effects on endangered species (e.g. lynx) and their habitats. I echo these concerns.	WI01, WI02, WR115
<b>Sender Name (Submission ID)</b> Cathy Hanson (39778)		
14251	500 years to treat the water from the mine so it's safe? I've seen some of the devastation from mining - there is no wildlife, no fish, not even weeds grow near that toxicity. I don't want this in the state I live in.	WR115
<b>Sender Name (Submission ID)</b> Cathy Klegstad (11193)		
686	I feel this SDEIS lays the proper groundwork for developing an environmentally and economically sustainable project and I wholeheartedly support it.	NEPA16

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Cathy Klegstad (11193)		
688	PolyMet and its vendors will provide our young people with multiple opportunities for challenging and exciting careers.	SO10
1494	I support PolyMet Mining and believe they will build and operate a mine that complies with all regulations and protects the environment.	PD28
1495	Based on my review and the level of detail included in the draft EIS, it appears that a thorough evaluation of the project and potential impacts have been completed.	NEPA13
1496	Polymet can produce these metals in an environmentally sound manner and create hundreds of jobs that can support families and sustain communities.	SO10
<b>Sender Name (Submission ID)</b> Cathy Silvern (22782)		
12159	The long term effects are incalculable and won't be known for at least a generation; by then it will be far too late to help those impacted and to clean-up the toxic stew that fouls the water	HU03, WR129, WR195
13969	We cannot afford short-term jobs at the expense of long-term environmental degradation.	SO01
<b>Sender Name (Submission ID)</b> Cathy von Euw (45185)		
8987	Based on the fact that sulfide mining has never been conducted without negative environmental impact, the proposed NorthMet mine is not expected to create a sustainable quality of life within the area of Hoyt Lakes and the Lake Superior watershed.	SO02
8993	I believe that the MN DNR should not allow a company to undertake such a huge mining operation without a record showing that they are a qualified company to safely operate the proposed NorthMet mine.	PER35
8995	PolyMet does not have the resources to provide financial assurance for environmental clean-up.	FIN01
8996	If there are any releases of sulfuric acid to the soil, surface water and/or groundwater, then long-term significant environmental clean-up will be needed.	WR070
<b>Sender Name (Submission ID)</b> ceceile hartleib (41056)		
13941	I think they [PolyMet] want to make the money and then pull out and let the state pay for the clean up.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Cecelia Newton (9331)		
105	The SDEIS should be redone to compare alternatives that reduce Carbon Dioxide emissions, starting with changes in vehicle fuel and reduced reliance on coal power.	ALT13
3469	The CO2 emissions from the PolyMet sulfide mine and/or processing facilities would greatly increase Minnesota CO2 emissions. The greenhouse gas emissions from the PolyMet Mine, the processing facility, including the fossil fuels burned to run the vehicles on site and the plant on both places would be potentially -- now I know this is 107,342 metric tons per year. The statistic I'm giving is stated in this Supplement Draft EIS, Chapter 5, 405.	AIR01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Cecelia Newton (9331)		
13473	Over a 20-year mine plan PolyMet will emit 15,790,750 tons of CO2 equivalent pollution from burning coal to run its processing. That also is from the draft statement, Chapter 5, 406. Climate change caused by rising greenhouse gases will be affecting our natural habitats, our agriculture, and our health.	AIR01
13404	I'm writing to request that you increase the length of the comment period for the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (SDEIS) from 90 days to 180 days. Please listen to the community – there is too much at stake to rush this.	NEPA07
13405	Please also consider rescheduling the public meetings proposed for January 2014 so that they take place later in the comment period. At the very least, please provide an additional public meeting toward the end of the extended comment period in May 2014.	NEPA07
<b>Sender Name (Submission ID)</b> Cecilia Lieder (41702)		
2166	It would change the whole identity and ecology of our state - and for what? A few jobs for a short time and to advance the wealth of Polymet?	SO01
2168	Please put your considerable will and weight behind slowing down this process until it can be proved one way or another that Minnesota and its waters will remain that unharmed.	WR195
14093	How can the safeguards that have been proposed realistically be backed up?	PD01
<b>Sender Name (Submission ID)</b> Celeste Kawulok (54906)		
18873	Where is the human health impact information and clear information about toxic pollutants getting into the watershed?	HU01, WR042
18876	Where is the guarantee that we'll not have an expensive clean up left for the tax payers?	FIN10
<b>Sender Name (Submission ID)</b> Center for Biological Diversity (52183)		
6006	The Organizations agree that the wetlands that would be impacted by this project constitute an aquatic resource of national importance. The wetlands constitute part of the One Hundred Mile Swamp, a long-recognized wetland of great value, and headwaters of the St. Louis River, the largest U.S. tributary to Lake Superior. Lake Superior and its watershed have been singled out for protection by the U.S. and Canadian governments.	WET19
6007	The One Hundred Mile Swamp has been recognized by the U.S. Forest Service (USFS) and the Minnesota Department of Natural Resources (DNR) as an important wetland and habitat area. All parties recognize the high quality of the wetlands, and their ranking as an area of high biodiversity. ... In sum, this very large, high-quality wetland area is located in an internationally important watershed that has been subject to an enormous effort toward restoration and protection led by the EPA. For the reasons explained below, destruction of these wetlands would amount to “substantial and unacceptable adverse impacts on aquatic resources of national importance.”	WET19
6008	Many of the deficiencies described in the 2010 EPA letter remain in the amended permit application and the SDEIS. In particular, some of the specific reasons that the EPA gave for the finding that adverse impacts of the project may be substantial and unacceptable have not changed. The application and SDEIS still do not provide a mitigation plan for indirect impacts, do not provide sufficient hydrogeological information about the site on which to base an assessment, do not assess or compensate for the actual wetland functions that will be lost, do not ensure that water quality standards will be met, and propose most of the mitigation outside of the St. Louis River watershed.	COE02

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<b>Sender Name (Submission ID)</b>	Center for Biological Diversity (52183)	
6009	In this case, all of the activities and impacts of the proposed mine are dependent on the wetland fill permit, and should be considered as part of the review under the EPA Guidelines. ... If the applicant does not provide sufficient information to support a finding that the discharge will not cause or contribute to violation of water quality standards, ACE must find that “there does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with [the] Guidelines,” id. § 230.12(a)(3)(iv), and deny the permit.	COE03
6010	Our first concern in regards to wetland water quality is that the release of mercury in leachate from waste rock and peat, in air emissions and fugitive dust, and in the discharge of water drawn from Colby Lake will lead to increased levels of mercury in fish, both in the Partridge and Embarrass Rivers and their tributaries, and in downstream lakes and the St. Louis River.	MERC02, MERC16
6011	Neither the impacts of mercury deposition in wetlands nor the addition of mercury to groundwater flow through wetlands is assessed in the SDEIS. The SDEIS discussion meets neither NEPA requirements nor the requirements of the Section 404 permitting Guidelines in this regard.	PER11
6017	ACE should also consider the impact of fugitive dust and Plant emissions on mercury levels in the wetlands, as the fugitive dust would result from the same activities that require the Section 404 permit and are thus secondary impacts under 40 C.F.R. § 230.11(h). ... Unfortunately, mercury deposition has been quantified and considered for downstream lakes only, and not for wetlands or rivers and streams.... The SDEIS also explicitly ignores mercury in fugitive dust at the mine site. Although this is a relatively small source in regards to total emissions, virtually all of it will be deposited at the mine site, within the Partridge River watershed, and it is thus virtually certain to cause or contribute to water quality standard violations in wetlands and the Partridge River.	WET11
6018	Finally, the mine project includes a plan to discharge Colby Lake water into wetlands and headwaters immediately below the Tailings Basin. As explained in our comments on the SDEIS, Colby Lake water has a high level of mercury. Releasing this water into wetlands along with sulfate and combined with fluctuating water levels will almost certainly result in increased mercury methylation in this wetland system. ACE should consider this scenario both as a secondary effect, and in its public interest review pursuant to 33 CFR § 320.4.	MERC09
6026	in the context of impacts from drawdown, Section 5.2.1.2.2 reveals that within 1,000 feet of the pits, impacts are likely even to peat wetlands. In short, the SDEIS and its reference material do not provide support for the assertion that “significant quantities of groundwater are not expected to discharge to the wetlands.” Mineotrophic wetlands form when the groundwater level approaches the land surface for a significant portion of the year. In essence, water in these systems is groundwater. In the absence of adequate rationale for the assumption that groundwater flowing from the mine features would not enter these wetlands, ACE must assume that contamination would impact all wetlands that are hydrologically connected to groundwater in each flow path.	WET10
6032	Neither the permit application nor the SDEIS delineate or otherwise describe a mixing zone. If a mixing zone is being considered, it needs to be delineated and disclosed, and an assessment must be done to make sure that wildlife and aquatic life uses are protected. See Minn. R. 7050.186(1). A mixing zone based on the property line with no assessment of impacts on wildlife and aquatic life is inappropriate for surface water, especially when it is located on what is currently public land.	WR051, WR063, WR093, WR189
6033	The wetland fill at the Plant Site is also likely to result in water quality standard violations. The fill is required in part to buttress and otherwise alter the Tailings Basin so that it can receive tailings from the NorthMet project. The resulting discharge of pollutants from the tailings to wetlands and headwater streams should thus be considered pursuant to 40 C.F.R. § 230.11(h).	PER15, WET12
6034	The SDEIS assumes that more than 99 percent of the Tailings Basin seepage will be collected by the water collection system. The groundwater that is expected to escape the system is apparently assumed to travel underground, not discharging to any wetlands or streams until several miles downstream. No rationale for this assumption is given in the SDEIS.	WR058, WR166, WR167

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<b>Sender Name (Submission ID)</b>	Center for Biological Diversity (52183)	
6035	The SDEIS further assumes that 100 percent of the seepage from the south wall of the tailings basin will be collected, and will not enter Second Creek and its associated wetlands. No details are given regarding the water collection system or the hydrology or surface features of the area. At the very least, the SDEIS needs to provide adequate support for the assumption that seepage will not affect wetland water quality in this area. Finally, the SDEIS does not address the potential for seepage from the east side of the tailings basin and the potential that it will drain to Spring Mine Creek. Although most of the east side consists of higher elevation bedrock, a break in the bedrock provides an opening toward Spring Mine Creek. This entire area appears to consist of wetlands that currently drain toward the Tailings Basin. However, the east side of the tailings basin will gain significant elevation from the NorthMet project, which will result in a reversal of the drainage. Significant seepage is likely, and no collection is planned.	WET12, WR018, WR020, WR054, WR056, WR102, WR117, WR133
6037	this project would release additional sulfate into the St. Louis River system. As the largest U.S. tributary to Lake Superior, this river system is of national and international importance. It is already heavily impacted by sulfates, to the point where historic wild rice stands have disappeared from many areas and fish is unsafe to eat. Most of the sulfate pollution is from mining. Permitting new open pit mines within this watershed will only add to an already intractable problem.	WR158, WR159
6044	In summary, due to deficiencies in the SDEIS, we do not know how much sulfate would be released to the St. Louis River over the coming decades and centuries due to this mine, but we do know that the potential is high. We also do not know the level to which we must reduce sulfate additions to wetland, stream and lake environments to restore the ecosystem and eliminate negative impacts on human and wildlife health and welfare. But we do know that significant reductions are needed, and that the level is likely to be below the level at which PolyMet expects to discharge for hundreds of years. If ACE does not have sufficient information to determine whether this mine would contribute to significant degradation of the waters of the United States due to sulfate discharges, it must deny the permit based on a finding that it has insufficient information on which to make a judgment. 40 C.F.R. § 230.12(a)(3)(iv).	WR149
6045	the [EPA] Guidelines require consideration of impacts on state-listed species and other wildlife that is dependent on aquatic ecosystems when determining whether a permitted discharge would cause or contribute to significant degradation of waters of the United States. 40 C.F.R. § 230.30, .32. In this case, the destruction of an important population of a state-listed endangered plant species and the destruction of habitat for moose, a state-listed species of special concern, compel a finding that the permitted discharge would cause or contribute to significant degradation of waters of the United States, and thus must be denied pursuant to 40 C.F.R. § 230.10©.	PER09
6048	Although the Mine Site appears to provide prime moose habitat, no assessment of the loss of this habitat was included in the SDEIS.	WI02
6065	For many years, the EPA and other parties have suggested that the possibility of an underground mine should be assessed as an alternative to PolyMet's preferred alternative. There appears to be no disagreement that an underground mine would have less adverse impact on the aquatic ecosystem. The Underground Mine and other alternatives, and the lack of sufficient information and assessment, are addressed in our comments on the SDEIS. The Section 404 permit must be denied because "there does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with [the] Guidelines," 40 C.F.R. § 230.12(a)(3)(iv), regarding the availability of practicable alternatives.	ALT01, ALT06

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<b>Sender Name (Submission ID)</b>	Center for Biological Diversity (52183)	
6070	The fact is that PolyMet still has not conducted an assessment of the wetland functions that will be lost, despite many comments in 2010 pointing out this requirement, including those from the EPA. Rather than describing the functions that each wetland provides, the SDEIS simply assigns a rank to each wetland based on its quality. The PolyMet mitigation plan is geared toward replacing lost wetlands with wetlands of a similar quality (i.e., high, medium, or low), without regard for functions. This approach does not comply with the EPA Guidelines. Without an assessment, the ACE cannot determine whether mitigation would “compensate[e] for the aquatic resource functions that will be lost as a result of the permitted activity.” 230.93(a)(1). Unless and until PolyMet provides an assessment of lost wetland functions and a mitigation plan designed to replace those functions, ACE must deny this permit application.	COE05
6074	While the exact extent of indirect wetland loss cannot be predicted, some amount of loss is certain. For instance, minerotrophic wetlands within a certain distance of the mine are certain to be lost to groundwater drawdown. Implementing compensatory mitigation in advance of this impact is thus practicable. To the extent that losses cannot be predicted, the permit needs to be detailed, clear, and unequivocal on the mitigation that will be required once impacts are ascertained. The permit application and SDEIS make vague references to additional mitigation if it is deemed appropriate based on monitoring. This is completely insufficient to ensure that lost wetland functions will be compensated for. Although the permit application provides monitoring locations, it does not say what parameters will be monitored, or what would constitute an impact. For instance, will monitoring be limited to groundwater levels, or will wetland vegetation and water quality also be monitored? Will wetlands be deemed “impacted” only when the groundwater level drops a foot below their lowest (i.e., late summer) levels, or will the hydrological regime throughout the year be considered (and if so, how)? Finally, it provides no plan as to what sort of mitigation will be undertaken when wetlands are found to be impacted.	COE02
6075	The Guidelines require that compensatory mitigation be based on a watershed approach “to the extent appropriate and practicable.” 40 C.F.R. § 230.93(c)(1). In a situation where the watershed is losing between 912 and 7350 acres of wetlands, the watershed approach is not only appropriate, but necessary to compensate for lost functions. . . . The permit application describes a process of looking for large acreages within the St. Louis River watershed that could be used for mitigation sites. It describes nothing, however, in regard to watershed needs or plans, or how the proposed mitigation will compensate for lost watershed functions. PolyMet has apparently rejected several potential mitigation possibilities as too expensive or bothersome. While the Guidelines do emphasize “practicability,” ACE needs to consider that term in light of the extremely large loss that it would be permitting here.	COE01
6077	The reality here is that the proposed loss of wetlands is too large to be compensated for. It represents a loss to the Partridge River watershed and to wildlife that cannot be replaced due to its size. PolyMet is having trouble finding mitigation sites within the St. Louis River watershed because of the sheer size of the proposed loss...they [all state and federal agencies involved] are approving significant losses of wetlands within the system that cannot be replaced. This flies in the face of all of the effort and planning that has gone into the Lakewide Management Plan and the Binational Program to Restore and Protect the Lake Superior Basin. . . . This is particularly disturbing given that the wetlands here are not even private property; they belong to the federal government. While PolyMet has private property interests in the mineral estate, the federal government most certainly has authority to limit the circumstances under which the minerals can be extracted in order to protect valuable public resources. PolyMet has rejected underground mining as an option because it is not currently economically feasible.	COE01
6078	In addition to reviewing the permit application according to the EPA Guidelines, ACE must consider whether granting the permit would be in the public interest, weighing the expected benefits against the detriments. 33 CFR § 320.4(a)(1). Granting this permit would not be in the public interest . . . We particularly want to emphasize the impact of wetland destruction on global climate change. . . . the destruction of this amount of peatlands cannot be considered to be in the public interest.	COE03

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6079	The ACE public interest review weighs the financial and other benefits of projects that require wetland destruction against the environmental and other costs. PolyMet sponsored an economic study that was used in the SDEIS that vastly overstates the financial benefits of this project, and these projections cannot be used in a legitimate cost/benefit analysis. Furthermore, the SDEIS assumes that these metals are needed by the world economy, and this assumption cannot be accepted as true without supporting evidence. These issues are addressed in our SDEIS comments; we highlight them here as of particular importance to the public interest review.	SO07
6387	Since the SDEIS assumes that changes in groundwater quality may effect wetland water quality, and since the groundwater will include mercury released from mining features (including fill material) the only possible conclusion is that the fill may cause or contribute to violation of the mercury water quality standard and violate an applicable toxic effluent standard or prohibition.	WR158
6390	Appropriate compensatory mitigation is generally required to minimize potential adverse impacts. See 40 C.F.R. § 230.91(c)(2). The mitigation proposed in this case does not “minimize potential adverse impacts of the discharge on the aquatic ecosystem.” The Section 404 permit must therefore be denied due to the lack of an adequate mitigation plan.	COE02
13043	The Hydrogeological Model Used Faulty Assumptions Regarding Baseflow and Hydraulic Conductivity, Making Predictions Based on the Model Unreliable	WR003, WR052, WR086, WR091, WR105
13077	PolyMet’s approach in modeling groundwater flow was to divide the flow at SW-005 based on the area of the watershed at each modeling point. Clearly this approach does not work for a river that loses flow between upstream and downstream modeling points.	WR086
13086	The SDEIS Does Not Include Sufficient Information About Mine Pit Inflow and Drawdown of the Partridge River	WR086, WR179
13105	the discussion of mine pit inflow does not provide a citation at all, see SDEIS 5-90.	EDIT01
13107	the SDEIS must be substantially supplemented and revised to provide information as to the certainty of predictions regarding mine pit inflow and Partridge River drawdown and the range of various model inputs that was used to obtain them.	WR179
13108	The Water Quality Modeling and Assessment Ignores or Mischaracterizes Many Potential Impacts	WR189
13109	The SDEIS Does Not Assess Water Quality Impacts to the Partridge River Along a Three-Mile Stretch Upstream of Monitoring Point SW-004	WR016
13118	SW-003 represents an unimpacted location and the groundwater evaluation location below it represents a location impacted by the East Pit/Category 2/3 Flowpath.	WR177
13126	The Discussion of Aluminum and Lead Exceedances in the EmbarrassRiver is Misleading and Incomplete	WR082
13127	[The SDEIS] fails to consider and disclose the impacts of aluminum and lead on aquatic organisms as required by NEPA and MEPA.	AQ07
13128	The Aluminum Exceedance Would Violate the Clean Water Act...discharges to surface waters that have the potential to result in water quality standard violations are limited by water quality- based effluent limits. See 40 C.F.R. § 122.44(d).	WR177

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<b>Sender Name (Submission ID)</b>	Center for Biological Diversity (52183)	
13134	The Lead Exceedance Would Violate the Clean Water Act...What the SDEIS does not reveal is that natural runoff has a lead concentration below 0.6 ng/L ninety percent of the time, Water Modeling Data Package Vol. 2, Fig. 6-108, while contaminated groundwater at the first evaluation point that includes discharge Northern Organizations Page 11 of 157 to surface water has a predicted lead concentration of up to 2.5 ug/L id., Fig. 6-69.	WR059
13139	Aluminum and Lead Exceedances are Significant Environmental Impacts and Would Violate the Minnesota Environmental Rights Act...PolyMet would discharge lead at a level that would result in water quality standard exceedances where it mixes with water in the environment.	WR059, WR082, WR177
13182	It is unclear whether the “100% deposition line” refers only to total metal, or if it also includes all areas where a specific metal deposition will be greater than 100%. Also, Northern Organizations Page 17 of 157 absence of this information makes any judgment of the contribution of air deposition to violations of water quality standards impossible, as those standards are all for specific constituents.	WR151
13190	The SDEIS needs to include air emissions and fugitive dust sources in its assessment of impacts to water quality.	AIR07, WR151
13193	Finally, we note that the portion of metal that is from fugitive dust will virtually all be deposited locally. The obvious question is, how much of this metal will end up in the Partridge and Embarrass Rivers?	AIR07, WR151
13206	The Assessment and Discussion of Mercury Loading to the Partridge and Embarrass River Systems is Inadequate in Many Ways....increased mercury discharges to waters that do not meet water quality standards are forbidden, no matter how small. Minn. R. 7052.0300(2)	PER11
13211	The SDEIS Dismisses the Possibility of Mercury Transport to the Partridge River Through Groundwater Without Scientific Support	MERC20
13218	The SDEIS Uses Arbitrary Numbers for Many Mercury Inputs...Although the SDEIS predicts that the amount of escaped seepage will be very small, these predictions are based on flawed analyses regarding hydrology (at the Mine Site) and the effectiveness of the collection system (at the Tailings Basin).	MERC04, MERC11
13223	The Estimated Mercury Concentration in Tailings Basin Seepage is Not Based on All Available Data...The SDEIS does not address mercury in water that escapes the tailings basin collection system.	MERC06
13224	The SDEIS Uses Numbers for the Mass Balance Demonstrations That Appear to Have No Scientific Basis...No explanation is given for the use of 3.5 ng/L for other runoff; again, it would seem more accurate to follow the MPCA method.	MERC04
13225	The SDEIS Must Include an Assessment of Mercury Inputs from Air Emissions to the Partridge and Embarrass Rivers and Their Tributaries	AIR05
13226	The SDEIS Must Address Mercury in Colby Lake Water Used to Augment Flows to Embarrass River Tributaries and Second Creek	MERC11
13228	Sulfate Discharges and Water Level Fluctuations from the Proposed Project Would Contribute to Mercury Levels in Fish	AQ28
13232	The SDEIS Must Address the Potential for Mercury Mobilization From Overburden Materials	MERC20
13353	MEPA similarly requires an EIS to identify mitigation measures that “could reasonably eliminate or minimize any adverse environmental, economic, employment, or sociological effects of the proposed action.” Minn. R. 4410.2300(I).	NEPA09
<b>Sender Name (Submission ID)</b>	Chad Jurgens (16272)	

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Chad Jurgens (16272)		
10456	Mines also leave significant and permanent scars to the landscape and for a relatively small economic benefit to our state we are willing to forever change one of the most naturally magnificent places in the world.	SO01
<b>Sender Name (Submission ID)</b> Chad Sahr (22037)		
3332	We can have both clean water and jobs in northern MN. PolyMet has demonstrated it and will prove it when they get their permits.	PER34
19518	I trust that all of the agencies will ensure that PolyMets mining will be safe for the environment. I also know the huge economic impact that this could provide for the whole state of MN. I also know that all of these metals that they will be mining, will still be mined elsewhere. So why not have it done here..... Where we already have the strictest standards!	SO10
19519	PolyMet has proven that they will meet all of the standards and I hope that the regulators won't let the environmentalists delay this any longer. I feel that the groups that are against this are not pro-environment, they are anti-mining. If these groups were pro-environment then they would want this kind of mining here where we know it will be regulated and watched closely. Not in another country where standards are lower.	PER34
<b>Sender Name (Submission ID)</b> Chad Trebilcock (21879)		
9617	I believe the environmental review process has been sound and thorough. The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all state and federal regulations.	NEPA16
9620	It's time to move forward as people want and need jobs in the area.	SO10
<b>Sender Name (Submission ID)</b> Chanda Welch (44726)		
16184	The PolyMet NorthMet SDEIS differs in its estimates of federal and state and local taxes without explanation of what accounts for this difference. [For example,] The 2010 NorthMet DEIS stated: "IMPLAN modeling estimates that...during a typical year of operation the federal government would receive \$17.3 million and the state and local governments would receive \$14.5 million in taxes from the operation of the Project, excluding net proceeds tax" (DEIS 4.10-19). But the 2013 SDEIS says: "IMPLAN modeling estimates that, during a typical year of operation, the federal government would receive approximately \$30 million, and the state and local governments would receive approximately \$39 million in taxes from the operation of the NorthMet Project Proposed Action" (5-503).	SO05, SO08
16189	Table 5.2.10-3 in the SDEIS... projects state taxes of \$15.6 million and federal taxes of \$64 million for 2011, a number far larger than the \$30 million described from the IMPLAN model. These figures lack explanation and rely on estimates provided by PolyMet without any verification. These estimates have also changed dramatically from the draft versions of the SDEIS circulated earlier in 2013 without any explanation... No explanation of the change is provided, and no source provided other than personal communication with PolyMet.	SO05, SO08
16190	[Please] Revise the SDEIS to provide details of the calculations used to arrive at the estimated taxes paid and provide independent confirmation of these estimates from state and federal agencies	SO05
16191	[Please] Revise the SDEIS to provide consistent numbers in estimated taxes across all sections of the document or explanations of the differences in the estimates	SO05
<b>Sender Name (Submission ID)</b> Charlene Maertens (57244)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Charlene Maertens (57244)		
17370	All of your mining is destroying our water, the wetlands for animals, and causing more pollution.	WET24
17371	You are also partial to blame for formations of sink holes. You take away the ground, but you don't replace it.	GT09
<b>Sender Name (Submission ID)</b> Charles Baribeau (18127)		
3438	The PolyMet Project will increase, and as already mentioned, jobs in this area by about 400, from 1,000 1,000 to more. The Iron Range unemployment rate right now is higher than the state average, so This will help to increase the employment in this area.	SO10
3444	The [reverse osmosis] process will be pure; all the minerals, all the chemicals, the mercury, everything you've heard, them talk about will not be available to go back into the downstream system of the Lake Superior watershed.	PD28, WR190
13506	With that, I'm going to introduce for the record, two resolutions we [Virginia City Councilor] passed on PolyMet. One for the original draft EIS and we'll be putting together another resolution in next Tuesday's council meeting for this current supplemental EIS draft that's out at the present time....These resolutions were a 7-nothing vote and a 7-nothing vote with two members absent. The PolyMet Project will increase, and as already mentioned, jobs in this area by about 400, from 1,000 1,000 to more.	SO10
<b>Sender Name (Submission ID)</b> Charles Borden (50229)		
11004	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	PD29, WR060, WR181, WR182
11036	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
12448	I'm a lifelong friend of the boundary waters and ...the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality now and long into the future.	WR111
12449	This mine would work fine...where the water table is not rich and pristine. But to do this mine at the top of the laurentine divide where its effects would not just damage local water tables but run off into Lake Superior, the Mississippi River and hundreds of other smaller rivers and lakes is simply foolhardy.	WR111
16206	to do this mine at the top of the laurentine divide where its effects would not just damage local water tables but run off into Lake Superior, the Mississippi River and hundreds of other smaller rivers and lakes is simply foolhardy.	WR195
16207	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR195
<b>Sender Name (Submission ID)</b> Charles Dayton (43340)		
15738	I don't doubt that the agencies will act in good faith, but as a lawyer for environmental groups on the Reserve Mining case I learned that State Permitting agencies are not adept at predicting what will happen in nature in the future, even using the best available scientific information. ... The lesson for this EIS is that potential changes in climate, particularly rainfall, should be evaluated.	PD22

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Charles Dayton (43340)		
15739	Economic analysis of future treatment costs is required by law. ... [the absence of this] is an obvious flaw in the Supplemental EIS.	PER03
15740	My understanding is that the waste basins and treatment facilities for the water polluted by contact with waste rock will be designed for a hundred year rain event of 5.2 inches of rain in 24 hours. This is insufficient. ... So rather than assuming a single value for future rainfall, the EIS should evaluate treatment requirements and the costs of treatment under differing projections of rainfall, based on potential limits, and differing outcomes regarding the length of treatment that will be necessary.	WR176
<b>Sender Name (Submission ID)</b> Charles Derry (33513)		
12290	Maybe you don't seem to understand that the Lake Superior waters are pretty much a closed system and, as I have heard, have 300 year turnover. The lake may look big, but, it really isn't and this type of mining, shows the potential of killing the entire lake and its surroundings.	WR111
<b>Sender Name (Submission ID)</b> Charles Krysel (46075)		
10702	I think the environmental risks of this mining project far outweigh the projected economic gains if realized. Hundreds of years to mitigate the waste generated for a decade or two the mine is operated? ... This is just another of the mounting instances where an Industry takes control over public lands and its agencies. The State of Minnesota should reject this destructive and dangerous project.	PER35
<b>Sender Name (Submission ID)</b> Charles Lahti (18061)		
3156	...when [the waste rock and tailings are] in transportation we have hazardous materials that's in a liquid solvent state or a dried state going across all the water aquifers between here and the location. I'm afraid a train accident or something like that will put it into our water system, the Great Lakes, the Red River, going up the Hudson Valley or the Mississippi. And we are talking thousands of tons of hazardous material. How do we handle that? And why isn't the Department of Transportation involved in this permitting?	HAZ06, WR151
3159	And the other thing is on these routes we have to look at the hazardous characteristics for the emergency people and the fire responders. Those first responders are they going to be aware and properly equipped to handle the hazards that this brings forth to their towns.	HAZ06
<b>Sender Name (Submission ID)</b> Charles Marsden (42819)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Charles Marsden (42819)	
7255	How can we be assured that Minnesota taxpayers will not be stuck with an enormous bill for cleanup of the mining sites and ongoing treatment costs? Minnesota Rules, part 6132.1200 is supposed to provide for that, but the rule is only effective if (1) the future financial liability is forecasted realistically and (2) PolyMet is capable of providing financial assurances to the extent required to meet their potential obligations for both mine closure and reclamation and environmental damage. Section 3.2.2.4 Financial Assurances of the SDEIS for the NorthMet Mining Project and Land Exchange is the only place where this issue is addressed. Having reviewed that short section (3 pages), I can say with confidence that no businessman would consider the statements made and assurances suggested to be anywhere near adequate for entering into an agreement with PolyMet...no more definitive estimates of future costs to reclaim the sites and deal with long term monitoring of ground water are available. Further, there is no indication that the possibility of substantial contamination of ground water due to failure of impoundments or other issues has even been considered. Costs to deal with this kind of issue could far exceed the general estimates of closure costs (\$120-\$170 million after 20 years of mining) and post-closure monitoring and maintenance costs (\$3.5-6 million annually) that are referred to in this section. There are also no details to permit the DNR or anyone else to evaluate the reasonableness of the estimates given. Furthermore, it is clear from PolyMet's financial statements, that PolyMet will be incapable of providing the kind of financial assurances the state should require before any mining permits are granted. The Consolidated Financial Statements for PolyMet Mining Corp. for the year ended January 31, 2013 shows Total Shareholders' Equity of \$142.9 million, but if intangible assets are excluded (mostly capitalized costs and environmental obligations), Total Shareholders' Equity falls below zero. So at this stage, PolyMet has no capacity with its own resources to provide reasonable financial assurances, and also would not be able to induce a US based institution with adequate financial resources to provide the required assurances. ...Interestingly, buried in a footnote in the offering document for the recent IPO of Glencore, is a statement that Glencore controls PolyMet. In another place, the document assures prospective investors that Glencore is effectively immune to suit in the US. So there is a deep pocket behind PolyMet, but that deep pocket, is not reachable by Minnesota if Glencore fails to voluntarily step up to pay damages....In the situation at hand, the state of Minnesota has its best opportunity to demand meaningful, enforceable financial assurances regarding future damages right now...to protect all Minnesota taxpayers from winding up with a huge bill down the road to clean up large anticipated or huge unanticipated environmental damage by insisting that those who seek permission to conduct mining operations involving sulfide bearing rock provide adequate financial guarantees that those costs will be paid by them or a third party....These guarantees must be enforceable in the US to be meaningful. This probably means requiring a substantial cash deposit into a Trust Fund before mining begins and adding to that from a tonnage charge during mine operations.	FIN01, FIN04, FIN05, FIN08, FIN10, FIN14
8792	The SDEIS doesn't even consider the potential cost of remediation in the event something goes wrong and toxic mine waste escapes a tailings basin or mine or plant site.	FIN05
8794	Is Polymet required to provide adequate Financial Assurance as required by Minnesota Rules, part 6132.120?	PER03
8797	...annual post closure monitoring and maintenance (\$3.5-6.0million)...is projected in the SDEIS to be required for 200 years for the tailings basin and 500 years for the plant site. Since PolyMet has a vested interest in estimating these numbers on the low side, it is reasonable to use the upper end of the projections, and they may well be too low. These are cost estimates based on cost today. Costs will grow in the future, and the cost of inflation of 3% a year seems realistic.	FIN05, FIN08, FIN11
8801	Mine closure and reclamation costs of \$170 million today will be \$307 million in twenty years (using 3% cost inflation). For a Trust Fund to grow to \$307 million in 20 years, \$170 million would have to be deposited today, assuming an earnings rate of 3% a year, a reasonable assumption.	FIN05, FIN08
8806	...any agreement on Financial Assurance that does not provide, before mining commences, the equivalent of a cash Trust Fund well in excess of \$1 billion is grossly inadequate.	FIN05, FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Charles Marsden (42819)		
8809	Do not allow Financial Assurance to be pushed until late in the negotiating process with PolyMet. Address it early...Do not wait for PolyMet to make a proposal on Financial Assurance. Decide what would be good for the state and taxpayers and tell PolyMet what they need to do to provide adequate Financial Assurance.	FIN13
8850	...engage a licensed actuary to assist in the Financial Analysis process...An actuary could also be helpful in providing useful analysis of the probability of an environmental problem that could arise.	FIN09
17037	This is an experiment on a massive scale in Minnesota, and PolyMet must make a highly compelling case that they are capable of preventing downstream pollution. ...How would you defend your decision to undertake this experiment in the face of so much compelling evidence of the extreme difficulty (impossibility, some will say) of preventing downstream pollution from a copper mine?	WR023, WR111
<b>Sender Name (Submission ID)</b> Charles Moore (57343)		
18418	I think that the proposed or postulated cleanup has not been adequately tested on a large enough scale at other such mines.	GEN03
18419	the cost of the cleanup for hundreds of years seems to be -- how is that going to be guaranteed?	FIN01
18420	I am opposed because I think underground mining hasn't been given a -- I don't know how much that has been looked into.	ALT01
<b>Sender Name (Submission ID)</b> Charles Plumadore (4781)		
1892	After reviewing the information from the recent environmental impact analysis, I have no confidence that the Polymet company can keep the surrounding watershed safe from pollution caused by the mine.	WR115
<b>Sender Name (Submission ID)</b> Charles Schaedler (3049)		
853	The fact that this company will provide so many good jobs for Minnesotans [with this Project], is by far the most important thing to remember	SO10
855	The fact that [we can create jobs]... with no appreciable effect on the environment, is all the more reason to promote this project!!	SO10
<b>Sender Name (Submission ID)</b> Charles Sugnet (48670)		
12813	From a strictly economic point of view, it is a question of a large number of jobs that last for a short time and destroy the resource (the capital) versus a smaller number of jobs that are sustainable over the very long haul because they do not destroy.	SO01
<b>Sender Name (Submission ID)</b> Charles Wick (54568)		
18968	Minerals are too toxic in parts per billion to ensure safety. Monitoring of water quality has to be done way past the life of the mine and the corporate owners. Its too close to the BWCAW to risk such a major intrusion.	WR090, WR111, WR128
<b>Sender Name (Submission ID)</b> Charlotte Anderson (10158)		
359	Our natural resources in Minnesota have always been a defining part of our state's economic health and culture, and they MUST be protected.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Charlotte Anderson (10158)		
360	I do not believe that human progress and economic need should be held to be more valuable than our beautiful lakes, trees, land and wildlife. We need these places of quiet, clean air and water, these places of refuge.	AIR11
1435	The history of previous sulfide mining projects elsewhere in the country tells the story of ongoing pollution, bankruptcy of the mining companies, and cleanup burdens left to taxpayers. Why would we expect it to be different in Minnesota?	FIN01, FIN10, WR023
<b>Sender Name (Submission ID)</b> Chase Carter (54178)		
16407	The boundary waters is a beautiful place with many aquatic and non-aquatic animals. There is a lot of people who frequently visit the boundary waters. People also own businesses on and around the waters.	WI01
16410	If you start to mine for precious metals you will destroy so many great things. Sulfide ore mining will kill thousands of innocent animals	WI01
16412	It will also turn the water yellow and polute the little wilderness we have with acid and lower the ph so fish will die.	WR001, WR113
16413	The mining will bring jobs but it will also destroy many family businesses. Tourists won't come to visit because the wilderness won't be there. You think you will get profit from precious metals but its not worth destroying so many great things.	SO01, SO02
<b>Sender Name (Submission ID)</b> Chelsea Helmer (19942)		
1543	I concur with MDO #1 that "the natural variability in precipitation would be more adverse than reported in the SDEIS."... Predications of future water quality cannot be based on flawed statistical data related to current water quality. The agencies response states that if "actual NorthMet Project Proposed Action effects were found to be higher than predictions that steps could be taken to reduce those effects." What these steps would be needs to be specified. I request that the SDEIS needs to be redone to accurately reflect quantities of water in this hydrological system.	WR026, WR071, WR073, WR077, WR130, WR180
1544	There is NO PLAN to compensate for these thousands of affected wetlands. Additionally any compensatory mitigation, an undefined term, does not affect the St. Louis River watershed or Lake Superior resident. As a citizen of the Lake Superior Basin, I believe that the Section 404 permit must require "compensation" for loss and injury to wetlands in the Lake Superior Basin.	COE01, WET01, WET03
1545	Contaminants in the permanent waste rock and tailings will require treatment for hundreds of years, and admittedly mine pit pollution would continue in perpetuity... It is extremely unlikely that the PolyMet Corporation would survive the years that are needed to mitigate this pollution. Costs and a plan necessary for funding this treatment must be sufficiently developed and provided to the public. The SDEIS should explain exactly what would ensure how the treatment of mine pit pollution will be funded for hundreds of years.	FIN01, FIN05, FIN08, FIN13
14839	Firstly, I want to express disappointment that the ninety day comment period has not been extended. Ninety days is insufficient for proper public analysis of this SDEIS given its length and complexity.	NEPA07
<b>Sender Name (Submission ID)</b> Cheryl and Mark Wilke (54912)		
19314	Expensive clean-up operations that may ultimately fall to Minnesota taxpayers. Pollution, noise, and other serious impacts in areas near the Boundary Waters Canoe Area Wilderness that are important tourism and recreation areas. Sulfide mining is a gamble where the stakes are just too high.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Cheryl Dannenbring (7548)	
782	Being aware of these critical roles that wetlands play in the ecology and culture of Northern Minnesota, I am extremely concerned about PolyMet's proposed impact on such lands. By its own admission, PolyMet will destroy 913 acres of wetlands directly and another 7,351 acres will likely be destroyed due to fragmentation, pollution and changes in hydrology.	WET24
784	the Polymet's EIS details no plan to mitigate this huge loss within the Lake Superior Basin. Furthermore, the Army Corp of Engineers has no record of requiring wetland compensation or mitigation after a project is built.	WET03
786	I ask that the EIS be deemed unacceptable and that the DNR does not permit the mine on the basis of its own stated goals for preservation and improvement of wetlands in Minnesota.	NEPA09
3602	This EIS should cover all possible known variants of the mining plan, not just the one proposed at the time being. I am concerned that the mining company could start with a small operation and thus be grandfathered into a larger operation without needing to go through all review processes.	ALT01
8607	no copper-nickel mine has ever operated in the United States (or elsewhere) without leaving behind irreparable environmental damage... I believe it behooves our state representatives to look at what heavy metal mining does to the surrounding land and water before deciding to open our state to a similar fate.	WR023
8778	"There is no mine plan for any material that lies outside of the proposed open pit; as such, mining material located beyond the proposed pit outline would be evaluated as appropriate if proposed in the future." This EIS should cover all possible known variants of the mining plan, not just the one proposed at the time being.	CU02, PD30
9341	Polymet claims that all but 21 gallons of seepage per minute ... will be contained via pumps. That is a 99% collection rate. Nowhere is there an example of this almost perfect result .... Simply saying it will happen does not mean that it will.... PolyMet makes claims that are not backed up with hard evidence or scientific review. Nor do they explain what will happen when PolyMet is no longer there to keep the mechanical form of reclamation going - some 50, 200, or 500 yrs....	WR020, WR037
9342	The Forest Service claimed that the purpose of a land exchange was to unify ownership of federal lands so federal forests would not be on top of mineral leasing. But the proposed land swaps do not fill that purpose. Almost all of the land proposed for the swap have split ownership and severed mineral rights.	LAN04
9426	The mine will open a pit reaching below the presently used aquifer, thereby making a permanent connection between all geologic zones that are mined through. There is no plan to create a permanent barrier from the toxic mining byproduct to the water, either during mining or after by-product disposal.	WR090
10516	The SDEIS needs to be redone to analyze water quality outcomes/risks IF the tailings pile collection rate is not what PolyMet projects.	WR018, WR090
10518	[The SDEIS] also needs to detail Polymet's financial guarantee to back up its claims.	FIN01
10520	the land swap will allow PolyMet to take lands from the Superior National Forest—lands currently available for multiple-faceted public use—wildlife habitat, forestry, and recreation—and turn them into a single use (mining) parcel. It is not the Forest Service's job to make land available for a foreign corporation's economic benefit.	LAN01
10762	The mine will open a pit reaching below the presently used aquifer, thereby making a permanent connection between all geologic zones that are mined through. There is no plan to create a permanent barrier from the toxic mining byproduct to the water, either during mining or after by-product disposal.	WR090

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Cheryl Dannenbring (7548)	
11026	The amount of water that the proposed PolyMet mine would require for operations is of great concern to me... 'make-up water' drawn from Colby Lake would average 275 gallons per minute...After twenty years of use, this would mean removing a significant portion of the lake's total volume. No study was done to measure the effects of this lake drainage.	WR181
11029	I reject the 'we'll deal with that if it arises' solution which seems to be an integral part of this SDEIS. Plans for such eventualities must be in place before the operation is permitted.	PER06
11103	the Whitewater Reservoir could become tainted from the City of Hoyt Lakes' sewage discharge. Any number of unintended consequences could arise from using such large volume of water, and polluting much of it to the point that it cannot be discharged from the plant.	WR111
11105	Furthermore, as with the issue of pollution, the effects will be greatly multiplied with each additional mining operation permitted for the Arrowhead region.	CU11
11905	The mine will open a pit reaching below the presently used aquifer, thereby making a permanent connection between all geologic zones that are mined through. There is no plan to create a permanent barrier from the toxic mining byproduct to the water, either during mining or after by-product disposal.	WR090
12492	This EIS should cover all possible known variants of the mining plan, not just the one proposed at the time being. I am concerned that the mining company could start with a small operation and thus be grandfathered into a larger operation without needing to go through all review processes.	CU02, PD30
16200	Polymet's SDEIS, section 3-40 paragraph 2 states "There is no mine plan for any material that lies outside of the proposed open pit; as such, mining material located beyond the proposed pit outline would be evaluated as appropriate if proposed in the future." As in many sections of the EIS, this vague language opens the door to future environmental assaults without having a plan 'on the books' to deal with those eventualities.	CU02, PD30
16846	ES-24, paragraph 3 states that the Hydrometallurgical Residue Facility will be capped and double-lined for the duration of the estimated 500 years of toxicity. No know man-made structure can retain its original and viable properties for such a length of time, especially concrete or geomembrane, which are known to degrade. Thus any claims which count on this system to contain polluted material must be discounted.	PD17
16847	I am wondering how the MN EPA can approve and permit the Polymet copper-nickel mine...when many MN water ways are already polluted by old iron mining operations. The Clean Water Act clearly states that no new source of pollution can be added to already polluted water. PolyMet's permit must be denied until old pollution problems are dealt with.	COE03
16848	all "estimations" for pollution assumed by the SDEIS must not be accepted. Simply saying Polymet won't produce water pollution does not make it so.	WR025, WR072, WR189
16849	There has been no study that proves or disproves that water pollution will migrate via natural permeability or existing fractures...Until independent studies are conducted (not connected to the agencies authorizing the SDEIS) regarding water seepage (sub-terrain water migration) to give a clean understanding of where pollution may travel, the SDEIS should not be approved.	WR007, WR008
19520	What I would like to see in Polymet's EIS draft, is:1. a clear explanation of how they are going to prevent pollution from leaking out of holding ponds that are designed to leak.2. how they plan to keep the leaking pollution from seeping into surface and groundwater? 3. whether accurate water samples are being taken now to determine the pre-mining sulfate levels in surrounding ground and surface water?	WR044, WR045, WR049, WR057, WR066, WR072, WR088, WR116

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Cheryl Dannenbring (7548)		
19521	What I would like to see in Polymet's EIS draft, is:4. whether Polymet is making financial commitments to be responsible for 'clean up' of pollution that appears 20, 50, and 100 years from now. (as it is known that this type of pollution often takes that 20 years to manifest itself--hence the need for accurate pre-mining samples--and that it can be expected to linger indefinitely.5. whether they will be held responsible for restoring deforested areas with the biodiversity that presently exists, and continue to finance that restoration until the forests regain their former health?	FIN01
19523	What I would like to see in Polymet's EIS draft, is:6. whether the economic impact of the loss of tourism-related jobs, jobs related to our present resources of clean water, forests, and wilderness, have ben figured into the scenario?	SO06
<b>Sender Name (Submission ID)</b> Cheryl Gerth (48563)		
13396	I have several friends who still have a financial stake in Polymet's future, but their small economic loss is nothing compared to the threat to the clean air and water which is Minnesota's best legacy.	SO01
<b>Sender Name (Submission ID)</b> Cheryl Lawrence (41633)		
2144	Are you going to put up one third of the profits to remedy your mistakes? ... How much land will be forever ruined, unfit for anything when you stop because the price falls.	FIN01, FIN08
2145	Tell [politicians] what YOU WILL DO DIFFERENTLY to keep your holding ponds from ruining our lakes and rivers so the water runs brown and we can't even bathe in it.	WR141
<b>Sender Name (Submission ID)</b> Cheryl Olivanti (3139)		
150	As a small business owner, the higher paying jobs would bring customers to my business. With more business comes the possibility of having to hire more employees and hopefully lower the unemployment rate in norhtern MN.	SO10
<b>Sender Name (Submission ID)</b> Cherylyn C. Kelley (45323)		
9210	Downstream from the PolyMet site are wild rice beds, which are sensitive to sulfates and will die at even low levels.	VEG04
9213	There was very little information about the water treatment systems that would be used. How will it be paid for in the years after the mine is profitable? Will taxpayers be held responsible for the treatment costs?	WR035, WR128, WR143
9216	The SDEIS also does not include information about potential influence on the endangered species in the area.	WI01
9219	The SDEIS also mentioned that the cut off wall would extend down to the bedrock, but what will they do if there are cracks in the bedrock?	WR019, WR021
9224	PolyMet boasts the creation of 360 jobs and others that wouldn't be local, so I fail to see how that will help a great deal.	SO06
15582	The mine would dig up roughly 1000 acres of peat and bog but its effect would be felt for more than 4000 acres.	WET24
<b>Sender Name (Submission ID)</b> Chippewa Ottawa Resource Authority (42954)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Chippewa Ottawa Resource Authority (42954)	
3895	CORA understands that, in order to address pollution of the St. Louis River watershed...the proponent, under the NorthMet Project Proposed Action, would need to install and operate wastewater treatment systems for the duration of the modeled pollution simulations (200 years at the mine site, and 500 years at the plant site). We are extremely concerned that the authors of the SDEIS...have accepted this concept as a possible scenario. CORA agrees with the cooperating Native American Tribes that this time frame constitutes perpetual maintenance and should not be acceptable by any jurisdiction.	WR037
3896	We do not believe that proposals to mitigate the wetland loss listed in the SDEIS will be adequate and that alternatives to open pit mining at this site should be considered.	WET01, WET04, WET20
3897	Tribal cooperators...have requested that the SDEIS utilize the USEPA's 2011 NEPA review guidance titled "Applying Cumulative Impact Analysis Tools to Tribes and Tribal Lands" however this document has not been used to assess cumulative effects on tribal resources in the current SDEIS. CORA requests that the lead agencies use the resource-specific GIS-based approach as defined in the 2011 guidance to better account for cumulative impacts to resources of tribal significance.	CR03, CR08
3898	We would point out that the requirements for additional mining or disturbance should be even more stringent because of the history of environmental degradation in this area...We believe that the SDEIS should consider [the] commitments [made by the Commissioner of the MDNR in the Duluth News Tribute] and others that, not only the State of Minnesota but the State of Wisconsin, have made to protect wetlands, restore the St. Louis River AOC and ensure that future generations are not left with another costly cleanup.	PER07
4049	[The Project] will destroy and otherwise compromise over 1,000 acres of wetlands located in the Lake Superior basin and will destroy or permanently alter over 1,700 acres of bird and wildlife habitat classified by the Minnesota Biological Survey as sites of high biodiversity significance and nearly 700 acres of imperiled or vulnerable native plant communities.	VEG02, WET24, WI02
4056	the destruction of most of the wetlands and the requirement for a land exchange with the USFS could be avoided if the proponent had kept the alternative of proposing an underground mine for consideration however this alternative has been eliminated from the SDEIS... the reasoning given by the proponent for eliminating this alternative was economic feasibility [however the authors]... did not give the details on what an adequate return to investors would be...We request that the lead agency require that the underground mining alternative be re-examined and included in this SDEIS.	ALT01, ALT06
4069	we would like to point to an editorial by John Line Stine... and Tom Landwehr... published in the August 11, 2013 edition of the Duluth News Tribune and titled "Commissioners' View: St. Louis River is a Gem Worth Saving". In this editorial the commissioners outline the considerable efforts to restore damage to the St. Louis River system ... including over \$500 million of taxpayers' money that have already been spent on remediation. We believe that the SDEIS should consider these commitments and others that, not only the State of Minnesota but the State of Wisconsin, have made to protect wetlands, restore the St. Louis River AOC and ensure that future generations are not left with another costly cleanup.	WR111
4070	CORA does not believe that lands held in trust by the United States Forest Service (USFS) should be exchanged or sold to corporations for development, especially for open pit mining that will affect the ability of future generations to practice their treaty rights.	CR01
<b>Sender Name (Submission ID)</b>	chooch karton (45067)	
7552	What a dreadful shame it would be for corporations from other countries to damage our beautiful state for short term gains! Short term gains with disastrous long term consequences!!!	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	chooch karton (45067)	
16775	Nature that is timeless and rewards each generation with its lessons as well as guides us towards a healthier earth and more enlightened future: this is what we stand to lose!	WILD02
<b>Sender Name (Submission ID)</b>	Chris A Norman (11604)	
14242	you need to let the company show the world they can mine and process these elements safely by letting them try. We need the jobs! The world needs the previous metals.	SO10
<b>Sender Name (Submission ID)</b>	Chris Adams (41554)	
9336	In the groundwater flow model in the SDEIS, water percolates through the bedrock at an extremely slow rate of travel. For this reason, the model was run for 200 to 500 years, allowing enough time for water to move through the aquifer and reach the compliance point at the boundary included in the SDEIS. It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time. It also shows the project will still meet water quality standards even that far out ....	WR190
9337	This project would mean 2 million construction hours, 360 full-time mining jobs and more than 600 related jobs – jobs that our state needs.	SO04
9338	Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	PER34
<b>Sender Name (Submission ID)</b>	Chris and Catherine Pranskatis (54688)	
17842	The (SDEIS) repeatedly states that water treatment upon closure of the site will be required for an "undetermined amount of time." In all fairness, the site could require treatment for as little as a year following closure, but it may also require treatment for as many as a thousand years. Nobody really knows, which is extremely unfortunate for those of us that live near the proposed mine. Isn't a mine that requires treatment upon closure a violation of state law anyway?	PER04
17843	This SDEIS relays heavily on computer modeling. As we all know, a reliable computer model depends on good quality historical data, and even then, they fail. Considering that this type of project is new and unique to this ecosystem, we simply do not have reliable historical data.	PD22
17844	We have a saying in the engineering field; "Software eventually works. Hardware eventually fails ." I'm sure the engineers of the Deepwater Horizon were surprised when their drill rig sank in the Gulf of Mexico. What about the recent chemical spill in West Virginia? We're rolling the dice by allowing this project to move forward in one of the most water-rich regions of the United States.	WR070, WR111
<b>Sender Name (Submission ID)</b>	Chris Bangs (36657)	
14388	The costs for these copper mining jobs will come at far too high a price for all of the people of MN. The industry's track record of environmental damage is long and damning. Too many abandoned mines have been left for other state's residents to clean up at obscene cost levels.	SO01
14389	Furthermore, this mine is located much too close to the jewel of northern MN-the BWCA, which is a treasure we cannot risk to lose. On its eastern flank lays Lake Superior, the continent's largest source of clean water-which in time may prove to be far more valuable than all the copper below our state's surface.	WR111

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Chris Bangs (36657)		
14391	With only 350 jobs being proposed over 20 years and with environmental reparations costs projected to be in the hundreds of millions-why are we even considering this one-sided fiasco of a proposal?	SO01
<b>Sender Name (Submission ID)</b> Chris Bollis (46047)		
10452	I do not think it is in the best interest for the citizens of Minnesota to be responsible for future tax burden as a result of cleanup costs for pollution that will result from poly mets project. ... Financial assurances that need to be in place for 200 to 500 years have not ever been proven.	FIN01, FIN10
10455	The land swap between the forest service and poly met in my mind needs to have its own separate review. ... It cannot be lumped together and hurried through..... I feel it is a mistake for us to make this trade which would allow non ferrous mining to be done in our national Forrest without a longer period of time for public comment and education on this important change of use.	LAN10
10462	There is some discrepancy as to the amount of water being released from the project. I would believe the tolerances were put into the model for a good reason therefore it would make sense that the correct numbers be put in and the model be rerun. This is an important part of the EIS. In order to protect our citizens it is only responsible to redo the calculations and do a revision of the model.	WR086, WR093, WR178, WR183, WR189
10468	I believe this [type of mining] would be damaging to the already established tourism environment of that area. This includes businesses as well as cabin owners. The related jobs, as well as construction jobs, taxes and other benefits this tourism economy and vacation home industry brings to the state is sustainable and can be grown. I do not believe that the current tourism economy and vacation home industry could flourish side by side with the nonferrous mining economy	SO02
10476	PolyMets mine plan ... [should] account for the destruction of moose habitat as well as other natural habitat for the Canadian lynx.	WI02
10478	PolyMets mine plan...should call for a detailed plan for financial assurances that protect current and future taxpayers	FIN10
10483	PolyMets mine plan... should accurately assess health risks to the public	HU01
10490	PolyMets mine plan...[should] address the risks of mercury pollution for our children as well as future generations	HU01
10492	Polymets mine plan...should improve wetland protection and replacements	WET05
10494	Polymets mine plan...[should] provide Minnesotans with accurate information about how long polluted waters will require treatment	WR036
10496	Glencore must be recognized as a responsible party for permitting because of its ties with PolyMet	PER02
10498	Polymets mine plan... [should] fix the inaccurate water data used in the model and redo the water model	WR003, WR189
10500	... it is my opinion that the few hundred jobs and monetary gain for a corporation is not worth the perpetual damage and pollution nonferrous mining will cause to Minnesota's environment. ... Our fresh water is our most important and valuable resource.	SO01, WR115, WR195
<b>Sender Name (Submission ID)</b> Chris Bremer (43566)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Chris Bremer (43566)		
15498	This is not a long-term jobs program. It only delays the need for development of good, new jobs in that part of the state. ... this mine would damage the tourism business, including hunting and fishing, reducing long-term jobs in the region and our sense of being connected as Minnesotans by our commitment to our beautiful land and clean, productive waters. The proposed mine is a bad deal for Minnesota, even economically. As someone who is very concerned about the future of middle-class jobs in this state, I urge you to take a pass on this flash-in-the-pan.	SO02
15500	This is not a safe plan. The plan does not seem to adequately address the consequences of failures of primary water protection mechanisms. Numerous disasters in the US and elsewhere have shown that these systems cannot be trusted to behave as promised, or even as designed.	PD01
15508	There are no examples of good environmental outcomes related to copper-nickel mining. The checkered history of environmental care on the part of PolyMet's parent company has been terrible. They have not lived up to their promises and they do not inspire trust.	FIN01
<b>Sender Name (Submission ID)</b> Chris Chiappari (16972)		
11028	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Chris Commers (57229)		
17175	How do we sustain water treatment for 200 years? 500 years? Who will pay for this?	FIN01
<b>Sender Name (Submission ID)</b> Chris Dahlberg (18175)		
13380	I fear that this process is becoming unreasonably lengthy and burdensome. It has taken longer to get a permit for mining on the Iron Range than it took us to get a man to the moon.	PER20
13381	We need to unleash America's great workforce, including such people as our building and trades out there and jobless today... Let's get jobs going in Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Chris Engel (42831)		
7331	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
7331	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
<b>Sender Name (Submission ID)</b> Chris Enger (18294)		
12474	For the greater good of Minnesota, including the propagation of new jobs and a more vital northern Minnesota economy, we are absolutely in favor of proceeding with the PolyMet project.	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Chris Enger (18294)	
12475	Minnesota needs to start generating our own jobs and generating our own new economy, and revitalizing that northern part of Minnesota.	SO10
<b>Sender Name (Submission ID)</b>	chris fastner (15405)	
606	The proximity to the federally-protected Boundary Waters Wilderness makes this project clearly and simply too risky.	WILD02
<b>Sender Name (Submission ID)</b>	Chris Fleege (47663)	
7886	I feel this SDEIS lays the proper groundwork for developing an environmentally and economically sustainable project and I wholeheartedly support it.	NEPA16
<b>Sender Name (Submission ID)</b>	Chris Gordon (19962)	
1557	I oppose the development of the NorthMet Mining Project. The potential impact on waters that flow into the Boundary Waters Canoe Area as well as into Lake Superior, one of the largest bodies of fresh water is too large to risk.	WR111
1558	We cannot risk this incredibly valuable fresh water for a mere 360 temporary jobs. The jobs are here until the mining company depletes all the metals and moves on to the next one.	SO01
<b>Sender Name (Submission ID)</b>	Chris Haenisch (58104)	
20016	This proposed project does not sound safe with the 500 year hitch to contain the pollution...I think Polymet will declare bankruptcy and walk away from any responsibility like they have in the past.	FIN01
<b>Sender Name (Submission ID)</b>	Chris Heesch (54186)	
17195	the mining project... can also potentially take away camping and canoeing areas. Being an outdoorsy person I would hate for it to damage or take away any of that because those are things I love to do when it's nice.	LU06
<b>Sender Name (Submission ID)</b>	Chris Heeter (38266)	
11300	We are looking at hundreds of years ... of recovery needed in order to re-gain the water quality that we now have. This is not something we can risk, not a resource that we can replace in any way.	WR195
11301	the lure of jobs is strong, the needs are great. And, the jobs that would be created are not from a long view. Not from a place that is sustainable, even for mining in the long run.	SO02
11302	Help us stand for something that looks beyond a few decades and on into preserving a treasured area of wilderness that may not ever recover from this meddling	WILD02
<b>Sender Name (Submission ID)</b>	Chris Lian (15450)	
663	The fact that waste water will need to be treated indefinitely(forever) to avoid polluting our waters is a very scary proposition.	WR035, WR129

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Chris Lian (15450)		
665	This is a bad deal for minnesota ... Polymet plans on processing the metals in another state costing jobs in minnesota.	SO02
666	This project threatens tourism and property values in the region.	SO02
668	Calcium could leech into [Lake Vermilion] via numerous waterways tied to the mine allowing calcium levels to increase to a level that zebra mussels could possibly thrive.	AQ17
669	All of this water flows into the St. Louis River watershed and into Lake Superior poisoning the water I and tens of thousands of other people drink.	WR042
670	Th risk of an environmental catastrophe vs. the creation of a couple hundred jobs is a risk minnesota can't afford.	SO01
<b>Sender Name (Submission ID)</b> Chris Lish (48504)		
7798	The Federal land exchange of protected Superior National Forest land to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest. PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part of the Superior National Forest. ...	LAN01
7812	The watershed of the proposed mine contains three Important Bird Areas (IBAs) which would be directly impacted by the mining, and the flow of contaminants into the watershed of the St. Louis River. These IBAs are home to more than 250 species of rare and common birds, including Belted Kingfishers, Hooded Mergansers, Common Terns, Common Loons, and many others.	WI01, WI02
7814	Calculate how long treatment is needed. The Minnesota Department of Natural Resources (DNR) needs to evaluate how long active water treatment will be necessary to deal with pollution after this mine is closed. Information in the SDEIS suggests centuries of pollution will occur from this mine.Consider alternatives that could reduce environmental impacts. The SDEIS must evaluate alternatives such as lining the waste rock storage areas and tailings disposal basin to reduce leakage of toxin-laden waters into surface and groundwater.Plan for accidents. PolyMet provides no plan to manage common accidents, spills, leaks, or mechanical failures that may occur. The SDEIS must include contingency planning for intense rainfall events and other factors which may render the water treatment system ineffective.Fix problems in water impact analysis. The proposed mine plan uses inaccurate and incomplete information in the model for water quality impacts, which likely under-represents the extent of water pollution.	ALT13, PD03, PD22
7817	However, the NorthMet mining project SDEIS provides no information about how much water treatment would cost, what will be included in the costs, and how taxpayers will be protected from paying for environmental liabilities, such as the environmental clean-up after the mining company leaves (which, given the mining industry's history, seems inevitable). The public deserves to know the costs and risks up-front.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Chris McGreevy (46853)		
8617	The main one of course is that there is a connection from the Polymet project to the Boundary Waters Canoe Area Wilderness as Langley Creek flows through the Dunka River to the Kawishiwi and on to Birch Lake.	WR024, WR081, WR111, WR175
8618	Water monitoring and remediation at Langley Creek is not mentioned in the study. The fact that this has been missed, intentionally or unintentionally, call in to question quality of the entire SDEIS.	WR081, WR139
8619	The connection to the BWCAW watershed should also mean increased federal scrutiny of the project.	WR111

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Chris McGreevy (46853)	
8620	The Hundred Mile Swamp which is proposed to be exchanged for is an important wetland supporting wildlife and plant life. The various parcels proposed to be exchanged for the Hundred Mile Swamp are not the same quality of environment or even equivalent wetland. Therefore if the proposed exchange were to go forward, as project runoff flows into the wetland, the result would be an overall degradation of the environment in Minnesota.	WET19
8621	The portion of the SDEIS that considers air quality impacts considers only direct effects of air quality from the mining project from grinding and tailings pile dust. It does not consider the effect of power generation needed to operate the plant in this area and what effect that would have on the Superior National Forest. Certainly the amount of power needed to operate this project for Polymet and for expected use of excess processing capacity by Twin Metals would far exceed anything needed for the current population of the area and would have a negative impact on the Superior National Forest and the health of the population	AIR02
8622	The portion of the study that addresses reclamation states that is “uncertain how long” water treatment would be needed but that modeling shows that at 500 years of treatment, water quality would be within acceptable levels. The section also says that Polymet “would be held accountable”. Later the SDEIS explains, without details, that financial assurance instruments would be created. There are several problems with the lack of specificity in this section.	FIN01, FIN05, FIN06
8623	There are currently no financial institutions capable of guarantees extending to 500 years.	FIN01, FIN08
8624	Polymet could legally declare bankruptcy at any point in time and could no longer be held accountable in any way.	FIN01
8625	Given that the current length of time needed for remediation is unknown, how can any financial assurance be made that could cover any unexpected increase in the amount of time needed for remediation and take into account Polymet’s ability to declare bankruptcy and walk away, leaving the taxpayers of Minnesota to pay for clean up.	FIN01
8626	Unusual Weather Events. The report fails to consider the increasing likelihood of unusual weather events including large volume rainfalls, high winds equivalent to the 1999 blow down, as well as extreme winter temperatures, all of which could cause equipment failures, water runoff surges, and retaining wall failures.	PD22
8627	Comparative Studies. The SDEIS fails to study the project in the context of other sulfide copper/nickel mines and the overall historical environmental impact as well as the general regulatory compliance history of the companies involved, including companies who are Polymet investors. If permits are issued, will we see a constant battle to enforce regulations, will variances be sought?	PER23
8628	The SDEIS is prepared only as it relates to the Polymet project. It is widely understood that the excess processing capacity at the Polymet site is intended to be used in relation to other projects, including the Twin Metals project. The effects of the expected increased processing at the site if Twin Metals is operational should be studied now.	CU02, CU04
16645	The map in the study does not seem to accurately reflect the Hundred Mile Swamp. It does not show the full dimensions of the area and the drainage through Langley Creek...Polymet project to the Boundary Waters Canoe Area Wilderness as Langley Creek flows through the Dunka River to the Kawishiwi and on to Birch Lake.	WET19
<b>Sender Name (Submission ID)</b>	Chris Mortenson (7065)	
467	I am continually dismayed that our intelligent and technologically savvy society still holds to arcane mineral extraction techniques. Why is there no one in this debate saying we need to develop and implement different mining practices instead of making small changes to outdated techniques?	ALT16

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Chris Mortenson (7065)	
468	should be willing to invest in the research and development necessary to extract the ores in an innovative and environmentally safe manner. Doesn't this also add R & D jobs as well?	ALT16
<b>Sender Name (Submission ID)</b>	Chris Nelson (35947)	
11294	It is not acceptable to allow this mining for PolyMet Mining Corporation. Just another accident waiting to happen. When our water is polluted we have to then attempt to clean it in order to make it potable.	WR037, WR070
<b>Sender Name (Submission ID)</b>	chris nordstrom (41784)	
3270	The people of minn will be on the hook for to long, I am unwilling to saddle my grandchildren with this mess and neither should you .	FIN10
<b>Sender Name (Submission ID)</b>	Chris Norman (54819)	
18439	mining companies can't guarantee containment and safety for 20 years let alone 200 years. Don't jeopardize our clean water.	WR115
<b>Sender Name (Submission ID)</b>	Chris O'Brien (47310)	
11545	I find it absurd and irrational that the mining interests can even responsibly suggest their company will be around twice as long as United States history to date, that they will pay a bill for 500 years or that their technology and the landscape will even last that long	FIN01
14139	Then there is the small problem of handing down knowledge of where the water is that is hazardous and that perpetually threatens the country's largest freshwater source and how to treat it for 500 years	PD03
14140	The reason these companies want in and in Minnesota is motivated by price and supply. The price for copper, nickel and other precious minerals is high because these are growing more scarce. But these prices are not going anywhere but up the longer into the future we look...I argue that we should wait. Its not going anywhere. The longer we wait, the more its worth.	NEPA03
14141	The longer we wait the better we will be able to gauge whether our most valuable resource may not yet be our water. Lots of folks out of state are already asking about if we want to sell some and as time goes on and more and more people live on the planet, water is growing more scarce, privatized and valuable. I'm not implying or advocating that we sell our water, just that before we waste it we take into consideration its future value.	NEPA03
<b>Sender Name (Submission ID)</b>	chris raynr (10703)	
579	I think the State has done a good job in vetting this proposal and now it is time to let the company proceed.	SO10
<b>Sender Name (Submission ID)</b>	Chris Robinson (39220)	
6038	While the true One Hundred Mile Swamp is over 10 miles long and drains out of its east end to the BWCA, PolyMet's environmental impact statement maps draw a much smaller swamp less than 6 miles long that cuts off the eastern portion of the swamp, creating the illusion that the mine and BWCA are not connected.	WR024, WR080, WR081, WR111, WR175

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Chris Spenningsby (18129)		
3447	The regulating agencies at PolyMet identified an improvement in the process, tested and implemented this new design and now they're able to reduce the projected sulfate level in the wastewater discharge to less than 10 milligrams per liter, which by the way, is 25 percent -- 25 times less than the standard required for discharging water.	WR190
3448	The second reason I support the PolyMet Project is that mining minerals in our state under our very strict regulatory control is the ethical thing to do....If the PolyMet Project were not to advance, the world-wide demand for copper that fuels our improvement in the quality of life will still be filled but not under the strict and open environmental review process we're seeing here tonight.	NEPA05
3449	...I support the PolyMet Project for the economic benefits documented in this study by the University of Minnesota-Duluth referenced in the environmental impact statement.	SO10
<b>Sender Name (Submission ID)</b> Chris Swensen (42726)		
14362	Our planet, our water, our trees, our animals (and we humans are creatures here) are too important to sacrifice for short term profit.	VEG10, WI13
<b>Sender Name (Submission ID)</b> Chris Timm-Hughes (44060)		
7662	I believe the land [in the project area] should be preserved.	LU04
<b>Sender Name (Submission ID)</b> Chris Vreeland (5996)		
1522	We need to move forward with precious mining, these are metals we use every day and we need to mine them in a environmentally friendly way... Polymet will do it the right way and this EIS proves that.	NEPA05
1526	I believe the co-agencies have done a very complete job on the EIS.	NEPA16
<b>Sender Name (Submission ID)</b> Chris Waltz (18242)		
13621	I'm wondering, and I'm not fully sure about the process, but I'm wondering why the MPCA is not involved in that process, and specifically were they excluded from that process? And then the other agency that I was surprised wasn't involved in that process was the US Fish & Wildlife Service, so I'm wondering why those two organizations weren't in that draft EIS report.	PER36
13710	I'm wondering what assurances they could provide where tailings and other pollutants from the copper-nickel mine would not flow into the Boundary Waters Canoe Area?	WILD01
13711	And then a follow-up to that is if the potential would exist that pollutants could run into there, could we have assurances through the financial assurances mechanism to properly fund those pollutants, if they do discharge into the Boundary Waters Canoe Area?	FIN05
<b>Sender Name (Submission ID)</b> Christey Sharpshair (41617)		
2126	After what I have learned of the effects this project will inevitably have on the environment--and eventually the people--the negative consequences far outweigh any positive benefits on the economy the project might have.	SO01
<b>Sender Name (Submission ID)</b> Christian Nelson (37313)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Christian Nelson (37313)		
16319	Not only is this just outright wrong, it's likely not feasible that the money will exist to cleanup something whose value was cashed in 480 years ago.	FIN01
16320	1 generation of jobs is not worth 19 generations (500 years) of clean-up efforts.	SO01
<b>Sender Name (Submission ID)</b> Christiana Wilke (54844)		
18951	PolyMet's tailings will be deposited on top of the old LTV tailings basin, which has been leaking for years.	WR070
18952	The land PolyMet would receive in exchange encompasses 53% of "One Hundred MileSwamp" approx .. 3,028 acres rated by the DNR as high in biodiversity.	WET23
18953	PolyMet plans to create 360 permanent jobs, 1,000 construction jobs for a period of 20 years. Union jobs? Fair paying jobs? Jobs for Minnesotans? Effects on logging, growing recreation and tourism or independent manufacturers and businesses?	SO10
<b>Sender Name (Submission ID)</b> Christie Jearmey (18339)		
2522	it [SDEIS] doesn't soften the impact the project will have on the communities and on the families, and especially the educational programs throughout northern Minnesota.	SO02
14620	The PolyMet project will provide substantial additional funding to our area's educational programs, which will help the whole state. PolyMet has already been engaged in helping set forth various educational programs for the last five years.	SO10
<b>Sender Name (Submission ID)</b> Christie Milczanowski (58020)		
19856	Please extend the no comment period to 180 days.	NEPA07
19857	I support the no action alternative!	NEPA15
<b>Sender Name (Submission ID)</b> Christie Nelson (54818)		
18421	I don't believe that politics should have a place in determining the future of our wetlands. I see this as selling our environment, pure and simple.	LAN01
<b>Sender Name (Submission ID)</b> Christina Bellert (47001)		
13140	Why is one cultures lively hood more important then the others. Native Americans rely on wild rice to supplement their lively hood whether they collect the rice and us it at home or sell it to generate income why is their way to make money not as important and miners? Because there are more miners?	CR01
13141	Wild rice is a delicate plant and will be impacted by the smallest change in its environment.	VEG04
16466	Manoomin (wild rice) is recognized as a significant resource for Minnesota's tribes, access to which is protected by the Treaty of 1854. Even low levels of sulfates are proven to affect wild rice stands,	WR156

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Christina Bellert (47001)		
16468	Since sulfate levels in wild rice beds downstream of the proposed mine already exceed the standard, the proposal must demonstrate it "would have an acceptably high probability of not increasing sulfate concentrations in these areas" (p. 5-5). The mine plan does not meet this test.	WR149, WR162
16469	The SDEIS is contradictory, on the one hand relying on mechanical water treatment for hundreds of years in order to seemingly meet the sulfate standard, but also describing possible passive treatments that may be developed that would seasonally violate the protective sulfate standards. The EIS should eliminate that contradiction.	PD03
<b>Sender Name (Submission ID)</b> Christina Diver (57204)		
17097	I find the SDEIS faulty and inadequate because the proposed plan does NOT protect Minnesota taxpayers.	SO02
<b>Sender Name (Submission ID)</b> Christina Erickson (51605)		
3621	Sulfide mining threatens the areas of Minnesota that I love most; wetlands, rivers, lakes and streams across the Arrowhead Region. Even our fabulous Lake Superior and the Boundary Waters Canoe Area Wilderness.	WET24, WILD02
3622	The industry needed to extract the ore creates garbage, and the jobs it creates aren't sustainable over generations. At that point, we won't have our tourism to turn to either.	SO02
12432	The industry needed to extract the ore creates garbage, and the jobs it creates aren't sustainable over generations. At that point, we won't have our tourism to turn to either.	SO02
13915	Sulfide mining threatens the areas of Minnesota that I love most; wetlands, rivers, lakes and streams across the Arrowhead Region. Even our fabulous Lake Superior and the Boundary Waters Canoe Area Wilderness. Acids and heavy metal contamination pollute waters.	WET24, WILD02
<b>Sender Name (Submission ID)</b> Christina Klein (44142)		
14556	The GoldSim model significantly understates the base flow of groundwater due to inaccurate and inadequate data.	WR003, WR071
14557	A DNR Hydrology memo shows that the average flow of the Partridge River is 1.5 CFS, while the GoldSim model uses a 0.5 CFS average flow. That figure was based on one year of data from 1984, a year of significant drought in the area. The memo suggests that to be accurate, additional field data may be needed beyond what is in the SDEIS.	WR003, WR004
14558	If the model understates base flow, all of the conclusions in the model are called into question. Pollution will move further and faster off of the site, and the amount of water that would need to be treated will be higher. This could present technical challenges, increase the costs of water treatment after closure, and add to the amount of needed financial assurance to pay for long-term water treatment.	WR003, WR091, WR106
14559	the water model does not account for seasonal variations in groundwater and surface water flows on the plant and mine site. The GoldSim model should be run with accurate seasonal data to reflect the movement of pollution from the site in both high and low flow conditions.	WR065, WR173, WR177, WR189
14560	Redo the GoldSim water model using assumptions based on adequate and accurate field data... Gather field data to fix gaps in flow data for the Partridge River near Dunka Road, as suggested in the DNR memo written by Greg Kruse on December 17, 2013...	WR003, WR165, WR189
14562	Redo the GoldSim water model to account for seasonal variations in base flow and soil conductivity	WR003

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Christina Klein (44142)		
14564	Recalculate and rewrite sections of the SDEIS based on the [baseflow revised] GoldSim water model predictions, including water quality, water quantity, post-closure maintenance, and financial assurance	FIN08, WR003, WR189
<b>Sender Name (Submission ID)</b> Christina Petty Krauz (42840)		
14717	I accept the fact the heavy metals of coal and iron ore help produce energy and steel very important to my life and the nation:	SO10
14717	I accept the fact that heavy metals of coal and iron ord help produce energy and steel very important to my life and the nation. What has produced this letter is the fierence in the chemicals and waste from open-pit sulfide mining. I remember the problems in the South American Amazon area and I felt shame for our part by U.S. Companies, but having this ugly multi-generalational threat in my area of the world is nightmarish. The reasons to pursue the mine smell like greed. Please do not let this spoil my special part of my world.	PD26, SO10
<b>Sender Name (Submission ID)</b> Christina Sand (45456)		
9382	We should not be risking the beauty and purity of the BWCA and the water that sustains many people residing there.	WILD02
15720	The project presents unacceptable environmental risks and should not be allowed.	PER35
<b>Sender Name (Submission ID)</b> Christine (39344)		
12812	This would be good for the Iron Range, by creating jobs so people could stay and work here. We believe this could be done without hurting the environment	SO10
<b>Sender Name (Submission ID)</b> Christine Beckwith (16399)		
10806	I also urge the SDEIS to fully address the long term financial plan to treat water in perpetuity as well as incorporate a cost benefit analysis which takes into account irreversible impacts to the BWCA.	FIN01, FIN05, SO07
<b>Sender Name (Submission ID)</b> Christine Cole (11542)		
17146	EIS, or no EIS, the proposed mining project is a perpetuation of an unsustainable system of politics, economics, and lifeways. I have no amount of trust that the guidelines set forth in the EIS will be followed, that the land and people of Northeastern MN is truly respected or considered in this process.	NEPA15
17146	EIS, or no EIS, the proposed mining project is a perpetuation of an unsustainable system of politics, economics, and lifeways. I have no amount of trust that the guidelines set forth in the EIS will be followed, that the land and people of Northeastern MN is truly respected or considered in this process.	NEPA15
<b>Sender Name (Submission ID)</b> Christine Frank (43524)		
9401	With acid mine drainage expected to be virtually in perpetuity...the price tag for water treatment will be practically insurmoutable...Once a mine is exhausted, the usual behavior of most mining companies is to file bankruptcy, then cut and run without so much as a by your leave, leaving taxpayers to foot the bill.	FIN01, FIN05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Christine Frank (43524)		
9403	Mining 32,00 tons of rock per day for twenty years is bound to have a cumulative effect on the acidity of ground & surface waters.	WR151
11131	The lack of health impacts in the [SDEIS] document from exposure to toxic heavy metal contamination, the inhalation of mesothelioma-causing asbestos fibers, the drinking of acidic water, and breathing fugitive dust and other forms of air pollution is inexcusable. All of these are unacceptable risks which no one should have to bear--either mine workers or those living in surrounding communities or on tribal lands.	HU04
11132	Given that the chemical body burden of the average adult in industrialized society is some 250 chemical compounds, no one can afford further contamination of their mind/body. This is especially true for children, who suffer even higher concentrations...For the sake of human health now and in the future, there should be no hard-rock, metallic sulfide mining in Minnesota whatsoever.	HU03
15083	Clearly, mining of any sort is a highly energy- and carbon intensive industry especially when it is powered by filthy fossil fuels. Jobs from such an enterprise can hardly be called green.	PD39
<b>Sender Name (Submission ID)</b> Christine Huff (38904)		
5407	Please protect Lake Superior. You have influence that most of us do not. Please use that influence to help protect the future for our children, and their children.	SO02
<b>Sender Name (Submission ID)</b> Christine Oliver (5908)		
8043	How are we considering letting any company, ... brand new company with no formal experience in this type of mining, start a project that we already know, ..., would need 500 years of follow up? Who will pay the price if we cannot miraculously keep this company solvent and in charge of this for the next half millenium?	FIN01
10479	Our northern lakes and forests are the most invaluable resource we have in this state, this proposal has a high, high risk of contaminating these significantly... Incidents such as what just occurred on West Virginia's Elk River might be a reminder to us of the potential for things to go array, and again, this situation is even at its onset problematic.	WR023
<b>Sender Name (Submission ID)</b> Christopher Apriori-Mendoza (41154)		
9199	As a student of Economics, I understand your reasoning, but think you logic in pursuing the mining project do not take the natural aesthetic and environmental resource is will at the expense of.	LU04
<b>Sender Name (Submission ID)</b> Christopher Berger (54529)		
19050	I'm interested in learning about existing copper mines, their environmental impact statemetns and how successfully each has avoided environmental pollution. I believe this background should be included in the PolyMet EIS as it is representative of actual and likely outcomes.	PD26
<b>Sender Name (Submission ID)</b> Christopher Carlson (15749)		
12013	I am concerned about the long term effects of the mining on our water quality, while only providing a few jobs over a short period of time.	SO01
12015	I am worried when I hear that there will be 100 to 500 years of necessary water treatment after the mining stops. There does not seem to be any proposal to set aside money to pay for this, and how much will it cost.	FIN01, FIN05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Christopher Carlson (15749)		
12017	As a property owner on the St. Louis River I am concerned with the effects on the land that I have spend so much time on planting trees.	LU03
<b>Sender Name (Submission ID)</b> Christopher Childs (38645)		
11885	Minnesota is contemplating the permitting of a mining facility that not only puts both its immediate and regional environment at demonstrated risk -- no sulfide-mining operation anywhere having succeeded in demonstrating that it could operate without eventually causing acidic discharge -- but which all by itself, as stated in the Polymet SDEIS, is estimated to increase the state's annual combined direct and indirect output of greenhouse gases by nearly half of one percent....	PD26
11889	...the seemingly casual, neatly rounded estimate (10,000 mtpy of CO2e; Table 5.2.7-8) given for terrestrial carbon loss. The potential loss is much higher, and it should be quantified in detail under a worst-case scenario.	AIR01
11890	values for kg of CO2 directly released onsite per kg of copper produced that run as high as 10 to 1...Polymet estimates an output of 36,000 tons...of copper annually from the proposed mine; a precautionary approach would use the highest demonstrated value for emissions, yielding a figure of up to some 327,000 tonnes of direct onsite CO2 releases per year, compared to the SDEIS value of 196,341 mtpy (Table 5.2.7-8).	AIR01
11891	Do we need a continuous output of copper? Of course we do -- ironically, on one level, to continue the advance of clean energy technologies which rely on a steady supply of this metal. What we do not need is copper produced in ways that undermine a core intent of clean energy-production, and energy efficiency, methods: vastly reducing our output of GHGs.	NEPA06
11892	No facility that threatens to add such a significant burden of CO2 and CO2-equivalent emissions to an already overburdened atmosphere should be permitted in this state -- or in any other location, anywhere.	AIR01
<b>Sender Name (Submission ID)</b> Christopher Delp (7733)		
74	Health issues including air born mercury and asbestos fibers were not seriously evaluated with the first draft EIS and not with this supplemental draft either.	AIR03, AIR05
75	Groundwater flow from the pit into the underlying aquifer are not adequately addressed in terms of both hydrology studies and planned monitoring of local wells in the event the mine proceeds.	WR087, WR089, WR139
<b>Sender Name (Submission ID)</b> Christopher Stauthammer DVM (44608)		
12071	I request that the DNR look into identifying methods to ensure that the mining companies will pay for the 500 years of estimated clean up.	FIN01
12073	I also request that the DNR analyze the environmental impacts on wild rice, and threatened species (moose, lynx, fishers and loons).	VEG04, WI01
12074	As part of this analysis, the DNR needs to look at what impacts would happen if there is a major spill of contaminated water into the surrounding watershed. What would this spill do the fragile waterfowl population?	WI07, WR202
12075	What is the projected loss of tourism income when the mine opens and if there is environmental contamination?	SO02
<b>Sender Name (Submission ID)</b> Chuck Corliss (18284)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Chuck Corliss (18284)		
4119	My concern is that there is a discrepancy between the number of years that we see on the modeling of 200 or 500 years, but I don't understand why they can't do testing of the ground materials to a level where they can tell us more definitively if we are dealing with a pollution containment for 60 years or 80 years, or if in fact it could be for 500 years.	PD29, WR035
<b>Sender Name (Submission ID)</b> Chuck Dixon (17334)		
1971	I implore you to take a stand, against allowing the mining companies, anywhere near, any waterway, tributary, stream connected to or running into a Boundary Water Area Lake Or Waterway.	WR111, WR195
2097	The residue left behind by copper mining seeps into the water, kills plant life, fish & wildlife.	VEG06
<b>Sender Name (Submission ID)</b> Chuck Engel (42832)		
7332	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
<b>Sender Name (Submission ID)</b> Chuck Fitzer (47368)		
11457	It provides relatively few jobs for a couple of decades, which will not rejuvenate the economy in the area. In the meantime, the pollution will wreck the environment and not be cleaned up till long after our grandkids are gone.	SO01
<b>Sender Name (Submission ID)</b> Chuck LeGros (45349)		
12800	Revise the SDEIS to address Minnesota Rules 6132.3200 and clarify how the post-closure activities described in the mine plan are consistent with the mandate that the closed mine site be "maintenance free."	PER04
12801	Extend the water pollution model and account for changing water tables and fractured bedrock.	WR011, WR012, WR036, WR061, WR099, WR168, WR169
12802	Demand that Polymet and Glencore produce documentation about the numbers of local jobs they expect to produce; to describe how they will train and protect Minnesota laborers, how they will protect existing economies (wild rice, winter and summer tourism, fishing) that depend on clean water, silence, low light pollution; to describe methods for enhancing sense of community rather than creating tension and hostility that we see over and over in communities (most recently in our neighbor North Dakota) where new mining industry disrupts and does extensive damage even while providing jobs to a relatively small number of local workers.	SO04
12803	Demand that Polymet describe and include local jobs produced by the ongoing provision of water safety. Demand that the financial assurance includes funds for those important jobs.	FIN01
12805	Demand that the financial assurance is based on realistic predictions based on accurate worst case water table models and fractured bedrock; that Glencore and other large investors are named and held responsible for the financial assurance for 1) mine clean up; 2) water quality maintenance over the projected 500 years of necessary monitoring and treatment; 3) for other environmental disruptions that will occur and for accidents and inevitable problems that were not anticipated in the SDEIS.	FIN01, FIN02, FIN05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Chuck Nelson (9590)		
1130	As an alternative to mining sulfide rock we could establish a better jobs program by fostering a metals recovery operation that would mine valuable metals from our electronics trash. Engage the electronics manufacturers in the processing, for they certainly know where the metals are to be found in the devices they have made. Locate this facility away from vulnerable water resources.	NEPA06
13592	Twenty years of jobs for a few followed by centuries of danger or worse. We would be fools to permit this exploitation.	SO01
13593	As an alternative to sulfide rock mining, we could establish a better jobs program by fostering a metals resource recovery operation that would mine valuable metals from our electronics trash, engage the electronics manufacturers in the processing for they certainly know where the metals are to be found in the devices they have made.	NEPA06
<b>Sender Name (Submission ID)</b> Chuck Spindler (11624)		
7396	Mining is Minnesota Money and money there's not enough of	SO02
7396	Mining is Minnesota Money and money there's not enough of	SO02
<b>Sender Name (Submission ID)</b> Chuck Viren (58163)		
19951	No one would be willing to take responsibility for the effects of their actions 500 years in the future. Yet somehow, PolyMet seems willing to take actions that will impact the environment for at least 500 years. Are they willing to guarantee the results at their actions for the next 500 years? Is the state? This project is [ILLEGIBLE] inaccurate, [ILLEGIBLE] beyond belief.	FIN01
<b>Sender Name (Submission ID)</b> Chuck Zeugner (43704)		
11928	There are individuals far more competent than I that have repeatedly addressed the inadequacy of the SDEIS economic impact analysis, the failure to address the consequences of creating a mechanism that will produce a permanent source of pollution in important watersheds, and absence of contingency planning in the event of accidents or unanticipated system failures.	WR130
11932	Further complicating the economic analysis is that the positive economic impact of the mining will be temporary within the region while the costs will be long term. At the same time, the abundance of wealth derived from the copper extraction will be taken away from Minnesota to benefit companies and individuals elsewhere.	SO01
11934	assuming that there will be no accidents, system failures, or unintended consequences should be a fatal flaw in any analysis. Any list of these things would be very long, and the economic consequences would be uncountable.	PD22
11935	A third significant issue is that of financial responsibility. Even the most ardent supporters of the PolyMet project acknowledge that there will be environmental impacts, and the SDEIS purports to describe the remediation efforts that will be made to mitigate the damage from those impacts.	FIN01
15673	Further the SDEIS does not adequately account for opportunity costs for displaced activity, or for the value of intangible, but significant items such as tribal rights to hunt, fish, and gather.	SO04
15674	the Arrowhead Region is an incredible treasure in its own right. While it is easy to focus on the value of the copper below ground, it is even easier to ignore the value of clean air and water. As easy as it is for the people that live in the North Woods to undervalue these resources, it is even easier for outsiders.	WILD02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Chuck Zeugner (43704)		
15675	three important unanswered questions. The first question is what constitutes remediation or restoration. It won't be possible to eliminate the pollution or to put the rock back. The second question is whether the ultimate cost of those mitigation efforts can be estimated, and the third question is whether PolyMet or a successor company will even be around to perform the remediation or restoration.	PD01
<b>Sender Name (Submission ID)</b> Cindy & Tom Edberg (6427)		
1072	This also will greatly benefit the peoples of St. Louis county financially in many ways in a area that has greatly needed it for a long time.	SO10
9499	I believe Polymet has put together a great plan that far surpasses any previous mining plan to protect the environment ever seen in Minnesota in the past!!	NEPA16
9516	Minnesota really needs this mine for the economic benefits it will bring to the people of the Hoyt lakes area and also to the State as a whole. Not only will good paying full time jobs with livable wages be created but also many more jobs that will pop up to support this new (already existing mine)! The economic boost for this part of Minnesota this mine will create has been sorely needed for many years!!!	SO10
<b>Sender Name (Submission ID)</b> Cindy Ilg (46880)		
8320	Please do not let SDEIS do any mining in the Superior National Forest. Please save our wetlands, bogs, and swamps from being destroyed by pollution due to open-pit mines. We do not want contamination of ground water or our lakes and rivers.	LAN01
8323	SDEIS is inadequate and should not be mining in a fragile eco system.	NEPA15
<b>Sender Name (Submission ID)</b> Cindy Oberg-Hauser (41879)		
2127	The long terms dangers of this project far outweigh the short term financial gains. We need to maintain the incredible jewel that is Lake Superior and the Boundary Waters.	SO01
<b>Sender Name (Submission ID)</b> Cindy Strong (28360)		
14733	As a youth I recall my first time seeing the northern lights in the BWCA and discovering what the word awesome actually means. We need these areas and so do our future generations. I ask you to make a decision respectful of what our children deserve from us. Please be a good steward to this beautiful planet.	WILD02
<b>Sender Name (Submission ID)</b> Cindy Swanson (41799)		
6370	Since it is simply a fact that the mining of this ore will result in sulfuric acid draining into the waters of northeastern Minnesota it is impossible for us to believe that most Minnesotans would support this mine for the short term economic benefit of a relative handful. The waters of northeastern Minnesota, in particular, have a special place in our hearts and to willfully permit their degradation is woeful governance and the abandonment of the expressed interests of the vast majority of Minnesotans.	SO01, WR001, WR195
<b>Sender Name (Submission ID)</b> Cindy Thomas (47030)		
10630	I may not know you but I do understand how damaging this mine IS going to be to the ecology in the river and surrounding the river.	WR115

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> City of Aurora (54709)		
17751	the metals that Poly Met will mine are essential for daily life- copper, nickel, cobalt, platinum, palladium and gold - found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters....	PD28
17752	the combination of strict Minnesota regulations and Poly Met's commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices....	PD28
17753	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; and...it is anticipated that the Poly Met Mining project will require 2 million hours of labor during its construction phase; and ... Poly Met Mining will contribute millions of dollars to local cities, school districts and the State through net proceed taxes, occupation taxes, and sales tax....	SO10
<b>Sender Name (Submission ID)</b> City of Chisholm (54639)		
18024	the metals that PolyMet will mine are essential for daily life -copper, nickel,cobalt, platinum, palladium and gold - found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters....	PD28
18025	the combination of strict Minnesota regulations and PolyMet's commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices....	PER34
18026	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; and... it is anticipated that the Poly Met Mining project will require 2 million hours of labor during its construction phase; and ... Poly Met Mining will contribute millions of dollars to local cities, school districts and the State through net proceed taxes, occupation taxes, and sales tax;	SO10
<b>Sender Name (Submission ID)</b> City of Ely (42902)		
18616	WHEREAS, the metals that PolyMet will mine are essential for daily life - ,copper, nickel, cobalt, platinum, palladium and gold- found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters;	NEPA05
18618	WHEREAS, the combination of strict Minnesota regulations and PolyMet' scommitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices	PER34
18619	WHEREAS, the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone;	SO10
18622	WHEREAS, PolyMet Mining will contribute millions of dollars to local cities,school districts and the State through net proceed taxes, occupation taxes, and sales tax	SO10
<b>Sender Name (Submission ID)</b> City of Eveleth (42910)		
19105	the metals that PolyMet will mine are essential for daily life - copper, nickel,cobalt, platinum, palladium and gold - found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters; and	NEPA05
19106	the combination of strict Minnesota regulations and PolyMet's commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices; and	PER34
19107	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; and	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> City of Eveleth (42910)		
19108	it is anticipated that the PolyMet Mining project will require 2 million hours of labor during its construction phase; and	SO10
19109	PolyMet Mining will contribute millions of dollars to local cities, school districts and the State through net proceeds taxes, occupation taxes, and sales tax.	SO10
<b>Sender Name (Submission ID)</b> City of Mountain Iron (40523)		
12127	The metals that PolyMet will mine are essential for daily life like copper, nickel, cobalt, platinum, palladium and gold are found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters.	NEPA05
12128	The combination of strict Minnesota regulations and PolyMet's commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices.	PD28
12130	The proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone. ...PolyMet will contribute millions of dollars to local cities, school districts and the State through net proceeds taxes, occupation taxes, and sales tax.	SO10
<b>Sender Name (Submission ID)</b> City of Virginia (42520)		
15509	the PolyMet project will create approximately 400 full-time, long-term jobs in Northeastern Minnesota, which will also generate hundreds of spinoff jobs that will provide a huge economic benefit to Minnesota, including the City of Virginia; and ...will contribute millions of dollars to local cities, school districts and the State of Minnesota through various taxes and royalties;	SO10
15510	It is anticipated that the Poly Met project will contribute millions of dollars to local cities, school districts and the State of Minnesota through various taxes and royalties;	SO10
15511	Poly Met has demonstrated that they can develop the critical metals and meet the strict environmental standards that are required in the State of Minnesota to protect the air, water and land;	PER34
15512	The Poly Met project will be reusing a brownfield site and existing infrastructure, which will minimize the disturbance of wetlands;	WET25
15513	The City of Virginia understands the need to buy locally and the PolyMet project will produce several metals that are not currently mined within the United States;	NEPA05, SO10
15516	Whereas, the Poly Met Project will reuse and recycle all water during operation, eliminating any discharge to surface water;	WR190
15517	WHEREAS, the Poly Met Project will not require any additional tailing disposal area beyond those already developed at the Erie plant site;	PD30
15518	WHEREAS, the Poly Met Project wetland disturbance area has been significantly reduced and will be replaced as required by Minnesota Statute;	WET25
15519	WHEREAS, the Poly Met Project will manage and treat all wastes as determined appropriate through the environmental review process; and WHEREAS, the company has stated intent to utilize the best mining and reclamation practices, coupled with clean and energy efficient metal recovery processing that does not include heap leaching or smelting;	HAZ02
<b>Sender Name (Submission ID)</b> CJ Feist (44605)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> CJ Feist (44605)		
12062	This mine is creeping in on one of Minnesota's landmark jewels and if we allow it to be followed through, we'll be facing not only a loss of biodiversity and ecosystems but a loss of one of our vital minnesotan organs	PD01
15628	This mine would sit at the prime spot for the pollution to run off into the waters and pollute this 'protected' area.	WR111
<b>Sender Name (Submission ID)</b> CJ Jacobson (43582)		
12303	do not let PolyMet pollute so much valuable, fragile land and water. For short-term economic gain and jobs that will not last long and a support infrastructure that will be time-stamped even as it's being built - the cost in the environmental impact and devastation is far too high.	SO01
<b>Sender Name (Submission ID)</b> Claire Barnett (14050)		
10723	It is vital to have long term planning and delegatedresponsibilities for cleanup that can not be avoided when mining is finished.	FIN01
<b>Sender Name (Submission ID)</b> Claire Gerhard (4894)		
1926	The PolyMet plan ... is a horrible misstep in the management of the unique resource of this area- fresh, clean water and all that lives in and around it.	HU01, WR017, WR115
19557	The PolyMet plan is a tragedy in the making. It is an action the area will never recover from even if no accidents occur (which seems highly unlikely). It is a horrible misstep in the management of the unique resource of this area- fresh, clean water and all that lives in and around it.	WR111
19558	Why don't we see clean freshwater as the precious resource it is? It isn't monetized like sulfide but I am sure people around the world -some who don't even have access to clean drinking water- value it more. Do I really need to remind anyone that water, sunlight, and oxygen are the gist of life on this planet? Resources that as human population increases become more measureable as they become more scarce. Now is the time when ecosystems like the BWCA require even more protection not compromise.	WR111
<b>Sender Name (Submission ID)</b> Claire Nelson (48604)		
13325	The Duluth Complex will be situated on a 27 square mile swath of land which was supposedly protected as part of the Superior National Forest.How can that be undermined?	LAN02
16761	By boasting that this project will bring in more jobs and economic revenue, and more the PolyMet Mining company has circumvented the very blockades meant to purposefully keep them out. Sulfide mining causes damage that is extensive and practically irreversible, PolyMet itself has stated that the clean-up process could take up to 500 years.	SO02
<b>Sender Name (Submission ID)</b> Clara Groenhoff (40159)		
6184	Everyone thinks about the jobs that [PolyMet] will generate, so we can't stop progress. But do progress and jobs need to harm the envionment?	SO02
<b>Sender Name (Submission ID)</b> Clarence Malick (47407)		
10275	I am writing to express skepticism that mining which requires hundreds of years of cleanup can possibly succeed...How the size of a sufficient set aside cleanup fund can possibly be determined through, what tens or hundreds, of economic boom-bust cycles eludes me....	FIN05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Clarence Malick (47407)		
17579	The BWCAW is a national treasure for all the citizens, not to be irreversibly exploited for a few hundred local jobs.	WILD02
<b>Sender Name (Submission ID)</b> Clarissa Ellis (40643)		
6549	I am very concerned about the pollution of our waters, and the lasting impact this will have on the people, economy and environment long after the mine operation has closed down.	HU01
14256	I understand that jobs are greatly needed in northern Minnesota. But I do not think that sacrificing the quality of our water and all that will impact for the short term economic gain is worth the price we will all have to pay.	SO01
14257	Given their history, I do not believe that the assurances of the mining companies are valid.	FIN01
<b>Sender Name (Submission ID)</b> Clark Gantzer (44209)		
11690	Sulfide minings potential for pollution is tied to the presence of water (wetlands), and for that reason it has usually been done in arid climates. Even in dry areas, the sulfide mining has still created severe pollution. The likelihood that sulfide mining can be done in northeastern Minnesota's wetland ecosystem without polluting lakes, rivers, and streams is highly improbable.	WET24, WR023, WR112
11693	to ensure proper reclamation and water treatment is done there must be continuous treatment for decades, even if PolyMet goes out of business, at a probable and unnecessary cost to the public.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Claudia Engeland (41791)		
3279	There should be no trade offs - jobs vs the unique water rich environment that is Minnesota. (...) I noticed that PolyMet references "hundreds" of jobs. This mine would have a LIMITED lifespan! A significant portion of Northern Minnesota's economy is tied to tourism that is centered around our clean rivers and lakes - the rights of these Minnesotans should not be threatened.	SO01
3283	The mere possibility that Lake Superior could be threatened by pollution from this mine should be enough for denial of this proposal! (...) PolyMet's 2013 SDEIS certainly does NOT guarantee that [contamination] can't or won't happen here! 200-500 years of potential damage to Minnesotans' health and water quality is an unconscionable risk!	WR111, WR115, WR195
<b>Sender Name (Submission ID)</b> Claudia Gibson (40866)		
13982	Remember you are entrusted with our resources. No one owns them No one has the right to destroy them. Please don't pollute with this terrible project.	SO01
<b>Sender Name (Submission ID)</b> Clay and Amy Wenner (21244)		
877	the introduction of this type of mining would irreparably hurt tourism in the region	SO02
889	The environmental impacts of the project are just too great, and I worry that the state will be left picking up the bill for clean-up.	FIN01, FIN10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Clay and Amy Wenner (21244)		
891	I would love to see more research and incentives to develop "knowledge clusters" in the region instead [of the NorthMet Project]. Some research I contributed to in graduate school explains the concept, "HYPERLINK " <a href="http://www.hhh.umn.edu/centers/slp/economic_development/documents/rkc_MnSCU.pdf">http://www.hhh.umn.edu/centers/slp/economic_development/documents/rkc_MnSCU.pdf</a> "Rural Knowledge Clusters: Implications for Minnesota Colleges and Universities."	ALT16
892	The environmental impacts of the project are just too great, and I worry that ... the water... of the region will be irreversibly damaged	CU11
893	The environmental impacts of the project are just too great, and I worry that ... the ...wildlife of the region will be irreversibly damaged	WI13
<b>Sender Name (Submission ID)</b> Clayton Sankey (39359)		
6228	Though the mine would bring money and jobs to Minnesota, the risk of disaster is too great to allow this mine. Any incident that damages the reputation of our state as a pristine vacation destination will cost more than we could ever gain from this mine.	SO01
<b>Sender Name (Submission ID)</b> Clifford Fenton Martin (57187)		
18653	Mining does nothing but fuel consumerism, kill miners and communities and kills the environment. We cannot continue to mine or start a new one.	SO02
20029	When we extract materials in an unhealthy and unbalanced way from the land, we extract the dignity of the humans who we not only impacted by the poison of this mining but also the workers who have to do it...Jobs are never worth destruction, hurt and pain.	SO01
20030	When we extract materials in an unhealthy and unbalanced way from the land, we extract the dignity of the humans who we not only impacted by the poison of this mining but also the workers who have to do it...Jobs are never worth destruction, hurt and pain.	SO01
<b>Sender Name (Submission ID)</b> Clifford Hansen (14219)		
8027	Barring that, financial assurance should be required for the full cost of the hundreds of years of water treatment that may be needed.	FIN05
<b>Sender Name (Submission ID)</b> Clifford Kashtan MD (37723)		
16333	The risks posed by this mine to water quality, the health of Minnesotans and the BWCA ecosystem are too severe to allow this project to move forward.	HU03
<b>Sender Name (Submission ID)</b> Clifford Moyes (31289)		
14003	The mining companies have a history of making promises they can't keep in order to get the permits they need. And when they are later identified as the source of pollution, they place the blame on everyone and everything except themselves.Solve the problem before it exists. Don't grant the permits!	PER35
<b>Sender Name (Submission ID)</b> Clint Jurgens (42839)		
14708	According to Business Week2, by 2030 nearly half the world will inhabit areas with severe water stress. Copper may improve our lives, but water is essential for life. Is the ore more important than our water?	WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Clint Jurgens (42839)	
14708	According to Business Week2, by 2030 nearly half the world will inhabit areas with severe water stress. Copper may improve our lives, but water is essential for life. Is the ore more important than our water?	WR111
14709	The SDEIS addresses water quality but completely fails to address the fact that water is a natural resource with inherent economic value.	SO01, WR195
14709	The SDEIS addresses water quality but completely fails to address the fact that water is a natural resource with inherent economic value.	SO01
14710	Water has an enormous economic impact on northeast Minnesota and as a resource to the world. Water is desperately needed in many areas of the US and the world. Why would you not consider uses of all the resources? Why place water on a lower needs level and merely consider it as a resource for mining ore?	WR195
14710	Water has an enormous economic impact on northeast Minnesota and as a resource to the world. Water is desperately needed in many areas of the US and the world. Why would you not consider uses of all the resources? Why place water on a lower needs level and merely consider it as a resource for mining ore?	WR195
14711	The Environmental Protection Agency should open its aperture of concern and address water as a resource with economic value. It is more than a necessary element of wild rice production and a critical element to outdoor recreation. Water quality must be maintained and treated as a natural resource with its own inherent economic value. The financial assurance required from Poly Met must include payment for the economic value of the water should it be damaged.	FIN05, SO02
14711	The Environmental Protection Agency should open its aperture of concern and address water as a resource with economic value. It is more than a necessary element of wild rice production and a critical element to outdoor recreation. Water quality must be maintained and treated as a natural resource with its own inherent economic value. The financial assurance required from Poly Met must include payment for the economic value of the water should it be damaged.	SO02
14712	This analysis shows that water is a renewable resource that is considerably more valuable than the copper nickel ore.PolyMet Investor's Presentation of June 20134 provides production and value numbers. It does not provide the mineral rights, financial assurance, nor reclamation costs, but presents low capital and operating costs with annual earnings before interest, taxes, depreciation and amortization (EBITDA) of \$217MM...Glencore has invested \$118MM into PolyMet.http:// fwww.polymetmining.com/wp-content/uploads/2013/02/PLM-Investor-Presentation-2013-06.pdf shows an internal rate of return (IRR) of 30.6% for a very lucrative venture, projecting to deliver in excess of \$4B over the twenty-year life of the project.Estimated Value of the Lake Water in Northeast MinnesotaEstimated acres of water for the lakes in Cook, Itasca, Lake, and St. Louis counties is 275,169 acres.Assumptions:Average depth is 20 feet.Price per acre-foot of water is \$1,500.Therefore the value of the water is: (acres) x (depth) x (price)= \$8,255,070,000.With continuous natural replenishment and sustainability, this value can be extended twenty years to match the mining operations, for a value of \$165,101,400,000.Estimated Value of the Duluth Complex for Copper-Nickel PGEAssumption:• Polymet is representative of proposed Duluth Complex mining. • Twenty years of mining.Determine the value per ton of ore from Polymet investor presentation:• 32,000 tons per day times 365 = 11,700,000 tons per year • Annual EBIDTA divided by number of tons mined equals value per ton:Polymet projected annual EBITDA = \$2	FIN04, SO04

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**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)**    Clint Jurgens (42839)

14712 This analysis shows that water is a renewable resource that is considerably more valuable than the copper nickel ore... PolyMet and The Value of Its Sulfide Mining Project PolyMet is a Canadian company traded on the Toronto and New York exchanges, planning on selling our minerals, most likely to China through an exclusive agreement with Glencore AG, located in Baar, Switzerland. As we pondered over the SDEIS we wondered just how did Polymet obtain the mineral rights and what is the economic value to PolyMet? PolyMet's numbers are considered representative and used to estimate the copper /nickel mining value of the Duluth Complex. The following slide is from Polymet's investor presentation: • Production rate - first 5 years 32,000 tons of ore per day 72 million pounds of copper per year 15 million pounds of nickel per year 106,000 oz combined precious metals per year • Low Capital and Operating Costs \$312 million initial capital costs Copper cash cost \$1.05/lb (co-product basis) Based on 2008 DFS Update • Robust Economics After tax IRR: 30.6% Annual EBITDA \$217 million Based on 2008 DFS Update LME Metal Prices - US\$ Average - 3 months to 3.31.2013 2008 DFS Update Copper 3.60 /lb 7.937 /t 2.90/lb Nickel 17.85 /lb 17,306/t 12.20/lb Cobalt 11.92 /lb 26;179 /t 23.50/lb Palladium 740 oz 320/oz Platinum 1,634/oz 1,230/oz Gold 1,630/oz 635/oz PolyMet Investor's Presentation of June 2013 4 provides production and value numbers. It does not provide the mineral rights, financial assurance, nor reclamation costs, but presents low capital and operating costs with annual earnings before interest, taxes, depreciation and amortization (EBITDA) of \$217MM. It also 3 Glencore has invested \$118MM into PolyMet 4 <http://www.polymetmining.com/wp-content/uploads/2013/02/PLM-Investor-Presentation-2013-06.pdf> shows an internal rate of return (IRR) of 30.6% for a very lucrative venture, projecting to deliver in excess of \$4B over the twenty-year life of the project. The Duluth complex in northeast Minnesota has received the most attention and is estimated to contain four billion tons of copper-nickel ores. PolyMet has stated that the Duluth complex is number two in the world for deposits of copper, and it is number three in the world for nickel. However, their presentation also shows the low quality of the ore. Less than 1% of bulk ore produces the copper, nickel, etc. generating over 99% waste in addition to the overburden. This equates to over 31,000 tons of waste every day, presenting a significant threat to the water. It is difficult to reconcile the fact that the first two companies investigating sulfide mining are not US companies, but foreign companies set to mine the ore, take the profits out of the country, and ship the ore to China. Where is the value to Minnesota in that? How can that be worth the small number of jobs that only last a single generation? If sulfide mining is permitted, it should at least be a critical part of a US strategic plan to maintain our leadership position in the world... Estimated Value of the Lake Water in Northeast Minnesota Estimated acres of water for the lakes in Cook, Itasca, Lake, and St. Louis counties is 275,169 acres. Assumptions: Average depth is 20 feet. Price per acre-foot of water is \$1,500. Therefore the value of the water is: (acres) x (depth) x (price) = \$8,255,070,000. With continuous natural replenishment and sustainability, this value can be extended twenty years to match the mining operations, for a value of \$165,101,400,000. Estimated Value of the Duluth Complex for Copper-Nickel PGE Assumption: • Polymet is representative of proposed Duluth Complex mining. • Twenty years of mining. Determine the value per ton of ore from Polymet investor presentation: • 32,000 tons per day times 365 = 11,700,000 tons per year • Annual EBITDA divided by number of tons mined equals value per ton: Polymet projected annual EBITDA = \$2

SO04

14713 PolyMet's sulfide mine will be near both groundwater and surface water resources that present an elevated potential for acid drainage or contaminant leachings. Kuipers and Maest studies show: • 85% of the mines near surface water with elevated potential for acid drainage or contaminant leaching exceeded water quality standards • 93% of the mines near groundwater with elevated potential for acid drainage or contaminant leaching exceeded water quality standards. • Of the sites that did develop add drainage, 89% predicted that they would not.

WR023

14713 PolyMet's sulfide mine will be near both groundwater and surface water resources that present an elevated potential for acid drainage or contaminant leachings. Kuipers and Maest studies show: • 85% of the mines near surface water with elevated potential for acid drainage or contaminant leaching exceeded water quality standards • 93% of the mines near groundwater with elevated potential for acid drainage or contaminant leaching exceeded water quality standards. • Of the sites that did develop add drainage, 89% predicted that they would not.

WR023

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Clint Jurgens (42839)	
14715	The current price of metals to be produced from sulfide mining make this venture profitable. The problem is the history of sulfide mining companies that start with the goal of being environmentally friendly but in the end all sulfide mines in water dominant areas are polluters, leaving the taxpayers the cost and task of cleaning up. The terrible history of sulfide mining continues from one mine to the next and is why the DNR must insist that the financial assurance from PolyMet includes payment for the economic value of the water as a natural resource with inherent value.	FIN01, FIN05, FIN08, FIN10
14715	The current price of metals to be produced from sulfide mining make this venture profitable. The problem is the history of sulfide mining companies that start with the goal of being environmentally friendly but in the end all sulfide mines in water dominant areas are polluters, leaving the taxpayers the cost and task of cleaning up. The terrible history of sulfide mining continues from one mine to the next and is why the DNR must insist that the financial assurance from PolyMet includes payment for the economic value of the water as a natural resource with inherent value.	FIN01, FIN05, FIN08, FIN10
14716	So, why mine and take the chance of destroying such a vast natural resource, the industries it supports, the value of lake property, and the tax base? This is a case where the minerals are more valuable staying right where they are, protecting and maintaining a globally strategic resource.	SO01
14716	So, why mine and take the chance of destroying such a vast natural resource, the industries it supports, the value of lake property, and the tax base? This is a case where the minerals are more valuable staying right where they are, protecting and maintaining a globally strategic resource.	SO01
19413	PolyMet is a linchpin project that if approved will lead to other mines.	CU04
19413	PolyMet is a linchpin project that if approved will lead to other mines.	CU04
19414	PolyMet is a Canadian company traded on the Toronto and New York exchanges, planning on selling our minerals, most likely to China through an exclusive agreement with Glencore AG, located in Baar, Switzerland.	FIN04
19415	Less than 1% of bulk ore produces the copper, nickel, etc. generating over 99% waste in addition to the overburden. This equates to over 31,000 tons of waste every day, presenting a significant threat to the water.	WR107
19415	Less than 1% of bulk ore produces the copper, nickel, etc. generating over 99% waste in addition to the overburden. This equates to over 31,000 tons of waste every day, presenting a significant threat to the water.	WR107, WR108
19416	It is difficult to reconcile the fact that the first two companies investigating sulfide mining are not US companies, but foreign companies set to mine the ore, take the profits out of the country, and ship the ore to China. Where is the value to Minnesota in that? How can that be worth the small number of jobs that only last a single generation?	SO06
19416	It is difficult to reconcile the fact that the first two companies investigating sulfide mining are not US companies, but foreign companies set to mine the ore, take the profits out of the country, and ship the ore to China. Where is the value to Minnesota in that? How can that be worth the small number of jobs that only last a single generation?	SO06
19417	Poly Met is the linchpin project enabling other sulfide mining projects in northeastern Minnesota that, based upon the history of sulfide mining, have the potential of endangering all the waters of northeastern Minnesota.	CU04
19417	Poly Met is the linchpin project enabling other sulfide mining projects in northeastern Minnesota that, based upon the history of sulfide mining, have the potential of endangering all the waters of northeastern Minnesota.	CU04
19418	what is the inherent value of the endangered water (not counting the services and tourism money enabled by the water resource)?	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Clint Jurgens (42839)		
19418	what is the inherent value of the endangered water (not counting the services and tourism money enabled by the water resource)?	SO01
19419	And, what is the impact on residential and commercial property surface rights [of sulfide mining]?	SO03
19419	And, what is the impact on residential and commercial property surface rights [of sulfide mining]?	SO03
19420	The estimated value of the water in northeastern Minnesota is significantly more than the estimated value of the Duluth Complex copper nickel mining operations.	SO01
19420	The estimated value of the water in northeastern Minnesota is significantly more than the estimated value of the Duluth Complex copper nickel mining operations.	SO01
19421	If it is polluted with mercury, sulfuric acid, heavy metals, etc. as a result of sulfide mining, then the value of this natural resource is zero unless the contaminants are removed. And, of course lake homes and resorts are significantly reduced in value. With a reduction in the value of lake property the tax receipts of these counties will also drop significantly. With polluted water the tourism industry will go away.	WR107, WR108
19421	If it is polluted with mercury, sulfuric acid, heavy metals, etc. as a result of sulfide mining, then the value of this natural resource is zero unless the contaminants are removed. And, of course lake homes and resorts are significantly reduced in value. With a reduction in the value of lake property the tax receipts of these counties will also drop significantly. With polluted water the tourism industry will go away.	WR108
<b>Sender Name (Submission ID)</b> Clyde Erickson (54155)		
16047	We do not believe the environment with its lakes and rivers could ever be protected from this mining project.	WR195
<b>Sender Name (Submission ID)</b> Cole Christenson (45547)		
11573	The Land Exchange serves only the private interest of a foreign corporation, not the public interest. The Land Exchange won't unify ownership of federal lands.	LAN07
11574	PolyMet should not be allowed to destroy high value wetlands in the 100 Mile Swampland and the Partridge River headwaters for its open-pit sulfide mine	WET19
11576	The PolyMet mine plan would destroy 2,775 acres of habitat for moose	WI02
11578	Eleven endangered or threatened species, including lynx, would be further impacted	WI01
11579	Even more water and energy (generating 707,000 metric tons of carbon dioxide each year) will be used in processing; leaving us with even more waste that will need to be managed for 500 years. This is in direct opposition to Minnesota's goal of reducing greenhouse gas emission by 30% by 2025	AIR01
11581	The SDEIS admits that PolyMet would directly destroy 913 acres of wetlands and as much as 7,351 acres in total due to air and water pollution	WET24
<b>Sender Name (Submission ID)</b> Colin Walker (23997)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Colin Walker (23997)		
9960	I have some major concerns regarding the SDEIS and specifically, the water model, which is at the foundation of the entire SDEIS (...) The specific miscalculations are related to the amount of water that flows through the mine site at the headwaters of one of the tributaries of the St. Louis River, the Partridge River. A misjudgment in math could potentially result in catastrophic, irreversible impact on the watershed.	WR003
16311	I demand that the DNR addresses this issue, with the highest expectation that the water model within the SDEIS will contain accurate data prior to any further decisions are made. Because of the fundamental flaw in calculation, the SDEIS is fundamentally inadequate and unacceptable.	WR003
16312	From the beginning, we've been told to "trust the science." Well, until a mining company can prove that sulfide mining can be completed and not harm a watershed, this is the wrong place with too much at risk.	PD01
<b>Sender Name (Submission ID)</b> Colleen Bonniwell (11538)		
2487	This land is sacred to us. This is Anishinabe AKI (Ojibwe land!)	CR01
2487	This land is sacred to us. This is Anishinabe AKI (Ojibwe land!)	CR01
2488	All lands in Minnesota are ceded lands. TREATY Lands and you can not claim them for minerals. And you are all in default of prior free informed consent governance. And in violation of TREATY LAW. Native people were finally recognized in 1978 as having a right to Religion and Sacred Items – the land water and forest and habitat.	CR01
2488	All lands in Minnesota are ceded lands. TREATY Lands and you can not claim them for minerals. And you are all in default of prior free informed consent governance. And in violation of TREATY LAW. Native people were finally recognized in 1978 as having a right to Religion and Sacred Items – the land water and forest and habitat.	CR01
7430	Duluth has not seen this much activity here in awhile, But it is not the whole voting populous. You need a 75% yes vote from all voters to permit any rights removed or changed. And the forest service, army corp, USDA, states DNR – National Forest Foundation are not the people.	PER01
7430	Duluth has not seen this much activity here in awhile, But it is not the whole voting populous. You need a 75% yes vote from all voters to permit any rights removed or changed. And the forest service, army corp, USDA, states DNR – National Forest Foundation are not the people.	PER01
18996	These mining companies go bankrupt and fail to provide damage deposits up front or consider the true cost and in some states have left the citizens of said states with hundreds of millions of dollars in liability.	FIN01
18997	The Polymet project you know I am sure is the front line of many more mining projects threatening the entire watershed which exceeds one third of the north American Continent.	CU04
18998	Polymet's base flow out of the proposed pit is wrong and has been underestimated by hundreds of percentage points and the real base flow would cause great damages in the hydrology.	WR086, WR087
18999	The huge use of acreage by Polymet's mine proposal in The Superior National Forest would cause huge acreage losses in the high biodiversity permaculture and mature forest and wetland flood plains acreages.	WILD02
19000	By Treaty and The Supreme Lay of the Land, this mine's siting is illegal.	CR01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Colleen Bonniwell (11538)		
19001	These treaties are “The Supreme Law of the Land” and siting this mine in the SNF would be a violation of law, trust, and good faith against the Indians. It would also violate the #1 Minnesota State Law, the claimed law of the Northwest Ordinance.	WILD02
19002	The Supreme Law of the Land . . .guarentees subsistance rights defend through time by the 1st Nation's Ojibwe.	CR01
19003	The land trade deal in Polymet’s minding project is illegal as the Superior National Forest Foundation of the US Congress mission statement demands protection of these said forests.	LAN02
<b>Sender Name (Submission ID)</b> Colleen Fisher (21640)		
10112	I love Northern Minnesota and want the people there to have a legacy of great paying jobs and the economy that will flourish due to Polymet.	SO10
<b>Sender Name (Submission ID)</b> Colleen LeBlanc (40868)		
13981	In addition, I believe ALL Minnesotans want our waters totally protected! We voted for the Legacy Amendment. We VALUE keeping our water clean. It is too precious to destroy as the proposed mine plan will do.	WR115
<b>Sender Name (Submission ID)</b> Colleen Lund (47775)		
8268	I am very concerned for the potential sulfate pollution of this area and its impact on human and animal health...Has there been an accurate assessment of how this mining proposal would further affect the well-being of the local residents and animals living in this area?	HU03, WI04
8278	If the model is incorrect, and there is more water flowing through the site than it assumes, the polluted water from pits and waste rock will move more easily through the soil, and reach lakes and rivers more quickly. The water could also carry more pollutants than the PolyMet model predicts.	WR087
8282	I am particularly concerned also for the loss of thousands of acres of critical habitat for our legendary moose inhabiting this territory which would be negatively affected by the PolyMet proposal.	WI02
8290	The issue of PolyMet mining also appears to present yet another threat to [the Native American] way of life by ignoring the impact on their sacred connection to both the moose population as well as to...Minnesota Wild Rice...polluted sulfate waters released into the watershed will undoubtedly have a negative effect on wild rice crops in the northland.	CR01
8292	The PolyMet operation would undoubtedly consume enormous amounts of dirty coal energy, which flies in the face of Minnesota’s goal to seriously reduce carbon emissions. ...Please address this vital issue of the PolyMet plan utilizing clean energy resources versus traditional coal sourced electricity.	AIR01
8311	Minnesota law requires that a closed mine site be cleaned up and remain maintenance-free!...Please provide accurate information and assurances that we know how long this pollution will be affecting the northland territories in any way connected with this mining proposal...Please fix the Polymet plan to recognize and hold accountable the Glencore commodities group as a responsible party for permitting.	PER04
8319	The potential costs of hundreds of years of clean-up and treatment for any major toxic disaster either leaking or dumped into our treasured waterways in the northland would obviously be enormous...Please have detailed in the Polymet plan a clear and concise plan for financial and time-period assurances that would protect Minnesota taxpayers from having to incur this enormous and expensive challenge.	FIN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Colleen Lund (47775)		
8324	The proposal includes destroying nearly 1,000 acres of our valuable peat bogs..It is also unclear to me just how these wetlands will actually be replaced. Please address the issues of wetland protection and replacement in the PolyMet plan.	WET17
11200	I understand that the PolyMet water model significantly understates the amount of water flowing in the nearby Partridge River. If this information is wrong, predictions about water pollution are in question. If the model is incorrect, and there is more water flowing through the site than it assumes, the polluted water from pits and waste rock will move more easily through the soil, and reach lakes and rivers more quickly. The water could also carry more pollutants than the PolyMet model predicts.	WR003, WR004, WR091
<b>Sender Name (Submission ID)</b> Colles B. Larkin (45604)		
11222	The sulphuric acid & toxic metals produced by this type of mining are the result of exposure of this rock to air & water. This contamination happens wherever such mining exists and has always - with no exceptions - polluted surrounding waters.	WR001, WR023
11226	This particular site is in a water-rich environment and, as such, facilitates/accelerates the seepage of pollutants (sulfide, heavy metals) due to the open-pit mining process.	PD01
11228	The PolyMet site is within the confines of the Superior National Forest (public land). Federal law prohibits open-pit mining within national forests/parks.	LAN02
11233	Since federal law prohibits mining in national parks, a "land exchange" of some 6000 acres has been proposed as an equal exchange for the land & water that will be polluted by PolyMet's mine. This is not an equal exchange.	LAN02, LAN03
11234	National parks/forests are set aside as recreational areas for humans to enjoy Nature as well as habitat refuges for flora and fauna. The reason for setting aside large tracts of land is to provide an extensive natural habitat; a mine in the middle of such an area cannot be compensated by token land elsewhere.	WILD02
11261	The DNR, as presently set up, has a conflict of interest relating to mining decisions. By federal statute the DNR is mandated both to regulate and promote mining on public lands ~ and, in its promotion capacity, to maximize the royalties collected for any mining on state land. Promotion and regulation are two different jobs; one government agency should not be responsible for both. The EPA should be given the regulatory responsibility ~ for the sake of citizen's health and, of course, the ecological impact.	NEPA18
11266	The DNR would compromise our water resources for copper when, per "the Institute of Scrap Recycling Industries, ... copper scrap now provides half of the annual U.S. demand for that metal and the U.S. provides 23% of the world supply of recovered copper"???	NEPA06
11268	The 500 year certainty of polluted water that will compromise the St. Louis River and others that spill into Lake Superior is, I think, too high a price to pay for the small amount of copper and the huge amount of polluting waste.	SO01
11275	I'd be willing to wager that mothers will not want their family members to canoe on waters contaminated with sulphuric acid, mercury, heavy metals, lead...	LU06
15902	A recent article (January 27, 3014) in the Star Tribune noted, as has the WaterLegacy organization, that 99% of the rock from which the mined metals are extracted would be waste. - Last Monday (March 3, 2014) the Star Tribune ran an article: "Duluth tires new view on tourism" and, next page, "Duluth: Not just a pretty view." This article announces the city's effort to expand tourists' awareness of the city's surrounding attractions. These include... "several places to launch canoes and kayaks ON THE WIDE AND SCENIC ST. LOUIS RIVER."	LU04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Colles Larkin (58119)		
19952	No open pit [ILLEGIBLE], it's my understanding has ever left a clear site. 500- years worth of pollution – Polymet has not, in SDEIS, has not put forth contingency plan for inevitable problems – leaks, from water pollution. The possibility of major contamination of the watershed that spills into the Great Lakes is too important to allow to happen...the risk is too great...EPA regulates and [ILLEGIBLE] for oversight need be augmented if we are to survive	PD11
19953	No open pit [mine], it's my understanding has ever left a clear site.	PD26
19963	Polymet's history is not stellar. Oversight is something they have shown [ILLEGIBLE] to not [ILLEGIBLE] with regularity.	PER02
<b>Sender Name (Submission ID)</b> Collin Motschke (21152)		
10233	Though supporters claim that it will produce large quantities of precious metals (copper, cobalt, and nickel), the NorthMet mine will have destructive ecological and economic impacts.	SO02
10235	Besides its ecological and economic consequences, the NorthMet mine would have harmful impacts on my recreational and spiritual life.	LU06
10239	[C]onstruction and operation of the mine could disrupt the natural serenity of the area, which, in turn, would negatively influence ecotourism, a significant contributor to the region's economy.	SO02
10999	Besides its ecological and economic consequences, the NorthMet mine would have harmful impacts on my recreational and spiritual life.	LU06
15778	Though supporters claim that it will produce large quantities of precious metals (copper, cobalt, and nickel), the NorthMet mine will have destructive ecological and economic impacts.	CU11
15779	The most threatening of these adverse effects is the potential for Acid Mine Drainage, a phenomenon in which sulfide ores become exposed to air and moisture, undergo a chemical reaction forming sulfuric acid, and leach into surface water and the aquifer. This process decreases pH levels, thus destroying many aquatic ecosystems and contaminating drinking water.	WR113
15780	The NorthMet mine will also have dampening effects on the economy. The Draft Environmental Impact Statement (DEIS), a federal document projecting the ecological consequences of business proposals, estimates clean-up costs of over \$44.6 million, to complete clean-up tasks including land reclamation and acid remediation.	SO04
15781	Besides its ecological and economic consequences, the NorthMet mine would have harmful impacts on my recreational and spiritual life.	LU06
16243	The most threatening of these adverse effects is the potential for Acid Mine Drainage, a phenomenon in which sulfide ores become exposed to air and moisture, undergo a chemical reaction forming sulfuric acid, and leach into surface water and the aquifer.	WR001
16244	The Draft Environmental Impact Statement (DEIS), a federal document projecting the ecological consequences of business proposals, estimates clean-up costs of over \$44.6 million, to complete clean-up tasks including land reclamation and acid remediation.	FIN05
16245	Destruction of this blissful refuge [BWCAW], an inevitable result of the NorthMet mine, would be absolutely devastating to me and the thousands of other people who enjoy the BWCAW each year.	WILD02
16246	If passed, these bills would set a precedent for selling public lands to private corporations and undermine the National Environmental Policy Act.	LAN02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Collin Motschke (21152)		
17001	The most threatening of these adverse effects is the potential for Acid Mine Drainage, a phenomenon in which sulfide ores become exposed to air and moisture, undergo a chemical reaction forming sulfuric acid, and leach into surface water and the aquifer. This process decreases pH levels, thus destroying many aquatic ecosystems and contaminating drinking water.	PD15
17002	The Draft Environmental Impact Statement (DEIS), a federal document projecting the ecological consequences of business proposals, estimates clean-up costs of over \$44.6 million, to complete clean-up tasks including land reclamation and acid remediation. In addition, construction and operation of the mine could disrupt the natural serenity of the area, which, in turn, would negatively influence ecotourism, a significant contributor to the region's economy.	SO01
<b>Sender Name (Submission ID)</b> Collin S. Mackey (44553)		
11789	I feel that Alternative B does not really accomplish anything, as all it really does is reduce the amount of land being exchanged between the NorthMet Project area and federal lands. It does not put further restrictions on waste and toxin management, so does not reduce any of the affects caused by the mine. I feel that if a different, more effective alternative cannot be made, no action should be taken, in order to protect the plants, wildlife, and local tribes at risk.	ALT23
11793	In the NorthMet Project Proposed Action, they state that 90% of the ground and surface runoff ... will be treated. But that still leaves 10% untreated water .....that can seep into the ground or runoff into the Embarrass River, St. Louis River, and other streams and lakes nearby.. could cause significant water quality degradation throughout the area, possibly disrupting fragile aquatic ecosystems nearby.	AQ05
11796	It also concerns me that 912.5 acres of wetlands will be directly affected and 6,498.1-7,350.7 acres of wetlands will be indirectly affected by this plan. Wetlands are a very important part of the environment that play a vital role in the purification of water.	WET24
11798	Another concern is the 4,016.3 acres of vegetation and wildlife habitat that will be reduced. Eleven special concern plant species will be directly or indirectly affected by this plan, which would only endanger them even further, and could disrupt the balance of the local ecosystem.	VEG01, VEG03, WI02
11799	It could also lead to the decrease of the local Canadian lynx population and other species, such as wolves. These are special status species, and any action that can threaten their habitat and endanger their population should be looked at with some scrutiny.	WI01, WI02
11800	This mine will have adverse effects on the Mesabe Widjiu (Laurentian Divide) and other local sites, and could potentially harm 1854 Treaty resources. This could harm the local Native American population and increase their living costs.	SO02
15293	They also state that a side effect would be an increase of aluminum and lead amounts entering into tributary streams... Aluminum and lead can be very toxic,	HAZ03
<b>Sender Name (Submission ID)</b> Colvin Loken (54127)		
16002	Please consider possible water contamination.	WR111
<b>Sender Name (Submission ID)</b> Community of St Martin (54722)		
18625	We are concerned that there exists no substantial evidence or analysis of how climate change, including severe storms, tornados, and downpours can be modeled and anticipated in order to minimize pollution from the mine entering into our water, land and air.	AIR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Community of St Martin (54722)		
18640	We are concerned that the costs of remediation are neither included nor estimated in the SDEIS. We are additionally concerned that centuries from now, no one will bear the burden of remediation and cleanup, but that the pollution will go unabated.	FIN01, FIN05, FIN13
18643	We are concerned that the positions of our Native brothers and sisters will not be respected. For far too long Native peoples have lost their lands, homes, means of livelihood, and their very voice to the dominant culture.	SO02
<b>Sender Name (Submission ID)</b> Compudyne (54710)		
18399	If approved, the project will have a significant, positive impact on Minnesota's economy and will ensure our communities can safely maintain our modern standard of living.	SO10
18403	we sincerely support the project and trust both PolyMet and the State and Federal agencies to ensure the mining process is safe, low-impact and carefully regulated .	PER34
18405	The proposed 20-year project will create \$720 million in wages and benefits and \$10.3 billion in economic benefit to St. Louis County. It will also create more than 600 jobs. According to the United States Bureau of Labor Statistics, St. Louis County has an unemployment rate of 6.1%, higher than the state average of 4.8%. Our county desperately needs the jobs to support local families and sustain our communities. These fulfilling, challenging job opportunities will help keep educated, talented young professionals in our area, something our communities have struggled with for over a decade.	SO10
18414	In addition, PolyMet will be a domestic supply of critical metals needed in electricity, cell phones, computers and other essential products. Without a steady supply of those metals, companies like Compudyne would not exist and our 74 employees would have to fight for stable, profitable employment elsewhere.	SO10
<b>Sender Name (Submission ID)</b> Coni Erickson (11551)		
2516	It will create many jobs for the Iron Range, help our schools, and I believe PolyMet will give us a better future for our communities!	SO10
2516	It will create many jobs for the Iron Range, help our schools, and I believe PolyMet will give us a better future for our communities!	SO10
<b>Sender Name (Submission ID)</b> Conn Mattfield (42552)		
17048	I think that this SDEIS will sufficiently cover the problems that come up with the site and environmental concerns.	NEPA16
17049	The actual permit will cover this site and make polymet abide by MN laws.	PER34
19604	I would like to show my support of the Polymet, Northmet project near Hoyt Lakes!! We need a safe and viable means to support economic growth in this region and with the states help I believe this is 100% possible!	SO10
<b>Sender Name (Submission ID)</b> Connie Grundhofer (3656)		
440	The people of the United States needs for quality water and land are more important than money.	SO01, WR115, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Connie Lanphear (43277)		
11769	my main concern is the potential to contaminate the Embarrass and Partridge Rivers, which flow into the St. Louis River and then Lake Superior. The plan to contain pollutants sounds weak....	WR111
11771	I have a very hard time believing any company would be around in the next 200-500 years to oversee the required and promised containment.	FIN01
15784	I don't like the precedent this mine would set for the many other mining projects waiting in the wings.	PER07
15785	I love our state's water resources especially, and want my teenage girls (and all Minnesotans and visitors) to continue canoeing the BWCA and to have the opportunity to share it with their own kids someday.	WILD02
<b>Sender Name (Submission ID)</b> Connie Lehr (43796)		
11805	It is my belief that the MN DNR and ERM have acted as proponents of this project, rather than in unbiased roles protecting the best interests of the residents of the state of Minnesota.	NEPA18
11807	The access to information was frustrating at best, and included a maze of different resources available in different ways. Transparent, it was not.	NEPA07
11808	I also question the amount and location of wetlands used in remediation. They are outside the Lake Superior watershed and the amount less than most believe is an adequate replacement.	WET03
11810	I believe the state of Minnesota deserves to put this project to rest and concentrate on mining that does not come at such a risk. If the copper is so valuable, we should keep it safe, just like the water.	SO01
11811	Lining the pockets of foreign investors at the risk of our environment is not worth 350 jobs on the iron range. It is time for the people who choose to live there to realize that Minnesota's heyday of mining was just that. You cannot expect to do the same job your grandfather did today anywhere. Jobs evolve over time for everyone, unless they are sustainable like fishing and farming.	SO01
11812	I also believe your decision to not extend the comment period was wrong. Polymet had years and millions of dollars, along with data provided by those protecting our resources to create their case. The residents of MN got 90 days to digest it and comment.	NEPA07
<b>Sender Name (Submission ID)</b> Connie Wanner (54655)		
17967	I am frustrated to see that the 90 day extension of the environmental review document was not granted.	NEPA07
17968	I would think 19,000 comments would indicate a strong question to the safety to our environment from this mining.	GEN01
<b>Sender Name (Submission ID)</b> Connor McComas (38389)		
13655	As an environmental scientist that specializes in water quality, I believe that mining, tourism, and good environmental quality can coexist.	SO10
<b>Sender Name (Submission ID)</b> Conrad Gill (3657)		
540	Please reconsider the environmental impact that could possibly occur (and generally does), if their mining project is permitted	PER06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Conrad Gill (3657)		
541	It seems to me that all mining projects, whether it be for oil, minerals or whatever, end up with some sort of catastrophic consequence. There is always an unforeseen event used as an excuse when the catastrophe occurs.	PD22
545	The jobs created are not worth the eventual costs. I'm sure that there are plenty of other industries that could be located in this area without the possibility of environmental endangerment.	SO01
<b>Sender Name (Submission ID)</b> Conservation Minnesota (42942)		
12007	Will Minnesota's water stay safe and clean?...the water data used to model the pollution risk from PolyMet is insufficient...a DNR hydrologist pointed out that...the amount of water flowing in the Partridge River was incorrect and needed to be revised ..the DNR should have this data reviewed by an independent hydrologist...run new models, and conduct additional research.	WR052, WR071, WR086, WR091, WR189
12012	Are there safeguards in place for when things go wrong?...[the SDEIS] fails to address contingency plans for likely malfunctions like pipeline breakages or downtime of water treatment facilities requiring extended maintenance or repairs.	WR130
12018	The omission of a comprehensive Health Impact Assessment for this project [is troubling]...medical professionals from Northern Minnesota pointed out that the PolyMet project is expected to increase Minnosotan's exposure to five out of ten chemicals the World Health Organization lists as major concerns for public health. Mercury, arsenic, lead, asbestos and air pollution are all potential byproducts of this form of mining...the Minnesota Department of Health needs to be included as the project is evaluated to ensure that potential threats to public health are addressed.	HU01
12022	Will the company leave the site clean and maintenance-free?...Given the confusion around this issue that has been created by conflicting statements from the mining company, state officials, and the SDEIS reference documents, anything less than a science based estimate of the duration of pollution mitigation that can be shared with the public will be inadequate.	PD01
12031	Will Minnesota's taxpayers be protected? ... Minnesotans are ill equipped to determine the amount of potential risk, because the spectrum of potential costs is so wide...The range in time expected to be needed to achieve maintenance free status is anywhere between ten years...to greater than 500 years...This leaves Minnesota's taxpayers potentially on the hook for anywhere between \$235 million and in excess of \$3 billion.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Cook County Coalition of Lake Associations (38695)		
14661	the hydrological models used to predict hydrological events attendant to both extraction and refining have been found to be inadequate as the geology of the Virginia formation--the source of the metals to be mined--is not fully understood....	WR007, WR026, WR105
14665	the SDEIS does not directly state the source or quantity of water to be diverted for use in the refining process. It does speak to drawdown on both the Embarrass and Partridge rivers but how much and for how long is not stated....	WR182
14666	examples of non-ferrous mining cited in the SDEIS are those of mines located in the dryer, water-poor areas of the U.S. and are therefore of questionable value in assessing how best to protect existing water resources....	PD26
14667	critical computer modeling of runoff from tailings piles into nearby waters has been shown to be inaccurate and underestimated....	WR105
14668	it is unrealistic to expect that water treatment projected to last some 200 to 500 years--durations calculated by PolyMet--can actually be accomplished....	PD03
14669	pit lakes are to be lined with a product guaranteed for only 20 years while the lakes will exist in perpetuity.	PD35

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Cook County Coalition of Lake Associations (38695)		
14671	financial assurance “deposited” by PolyMet before mining begins cannot realistically cover the unknown cost of reclamation and water clean-up.	FIN05
14672	The waters of the state of Minnesota are a far more valuable resource than the minerals to be mined.	SO01
<b>Sender Name (Submission ID)</b> Coralee Thilges (44993)		
7004	This project is such a short term mine in the first place. 40 years is not long-term for job seekers. Is it worth building a home in a place that will loose all it's boom in 40 fast years?	SO02
7007	Mining absolutely will pollute the ground and water with toxic materials that have been known to cause cancer.	HU03, WR115
17309	Waiting for the right technology that can extract without polluting is very worth it.	NEPA03
17310	The land holds so much value, let alone beauty.	LU04
<b>Sender Name (Submission ID)</b> Corey Wipper (3713)		
12347	[boundary waters] has been preserved for a long time, and I wish it were kept that way.	WILD02
<b>Sender Name (Submission ID)</b> Cori Mattke (20956)		
1862	Wondering if written comments must be received by March 13 at 4:30 PM, or postmarked by March 13?	RFI01
<b>Sender Name (Submission ID)</b> Corie Ekholm (9607)		
222	The SDEIS is good but I would like to have more explanation on the model used to predict the number of years of water treatment.	WR036
1137	Polymet has a well thought out plan to minimize and mitigate the environmental impacts associated with copper-nickel mining in Northern Minnesota. We need all the minerals Polymet will mine, they are essential to live in our society.	PD28
1138	I would much rather mine them here, where we will do it in an environmentally friendly manor, than in some other country with no regulation that will pour the pollutants into the air and water. We are already seeing the effects of Chinese factories air pollution in the US.	ALT16
<b>Sender Name (Submission ID)</b> Correy Merritt (3072)		
567	I suggest that it is by conducting mining in countries like the United States who have systems of laws and regulations in place that protect workers and the environment. By having mines here we can keep control of how they are operated and have accountability.	PD28
<b>Sender Name (Submission ID)</b> Corryl Jeske (18514)		
13402	The well being of all living things is in jeopardy with this inaccurate and incomplete SDEIS document.	NEPA15

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Corryl Jeske (18514)		
13403	A few low paying jobs in the area will never compensate for generations of contamination to our environment.	SO01
13740	A few low paying jobs in the area will never compensate for generations of contamination to our environment.	SO01
<b>Sender Name (Submission ID)</b> Council of Carpenters (54724)		
18644	The thoroughness and detail of the SDEIS encourages me that Minnesota can set an example for extracting mineral wealth, creating jobs and doing so in a safe and responsible manner that ensures our natural resources are protected for future generations of Minnesotans.	NEPA16
18645	Mining of the vast copper, nickel, palladium and other ore deposits on the proposed Poly Met site will provide beneficial tax revenue for the state, jobs for hard-hit workers, and will help preserve the way of life and culture of the Iron Range.	SO10
18647	The project, itself, lies in a different watershed than the Boundary Waters Canoe Area Wilderness and any seepage would have to travel over 150 miles to reach Lake Superior.	WR190
18649	The plant and mine would have to meet all of the same compliance standards at the original sites as similar current operations that sit right on the lake. Further, the plan for turning the pits into wetlands and a lake will be a useful and environmentally-conscious reclamation of these lands and will return the area to a natural look.	WR190
18650	The minerals that will be mined at the site are essential for emerging technologies and in the production of green, renewable energy sources. The demand for these minerals continues to grow and therefore it is a certainty that they will be mined.	SO10
18652	The project's compliance monitoring would be an ongoing process and would continue to ensure that the state's strict regulations were adhered to and that our natural resources are protected.	PER34
18654	I am confident that the required financial assurances will shield tax payers from having to foot the bill if anything should go wrong.	FIN16
<b>Sender Name (Submission ID)</b> Courtney Kerns (47171)		
8525	I am originally from West Virginia where we have so many dead rivers and creeks due to acid mine drainage... The short-term gains (the vast majority of which will go to out-of-state shareholders) are absolutely not worth the risk to our state's clean and living waters.	PER35
<b>Sender Name (Submission ID)</b> Craig A Swenson (19921)		
1508	Our State, especially Northern MN, needs jobs and this project (future projects) can bring economic vitality into the communities where the young generations have been forced to leave.	SO10
<b>Sender Name (Submission ID)</b> Craig Andrew Anttila (11522)		
2474	Royalty's to state, jobs at site, spin off jobs related to project are a big (+) to people of the surrounding community's; schools townships etc. will also benefit.	SO10
2474	Royalty's to state, jobs at site, spin off jobs related to project are a big (+) to people of the surrounding community's; schools townships etc. will also benefit.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Craig Blacklock (6233)		
1169	Tourism has been, and could sustainably continue to be a stable, long-term employer in northern Minnesota. I'm very concerned we might be sacrificing these sustainable jobs in favor of a short-term boost in employment from mining.	SO02
1170	...mine companies may go out of business far sooner than the need to mitigate mine pollution, sticking tax payers with clean up costs.	FIN01
1171	...the PolyMet proposal is the need to actively manage the waste for hundreds of years.	PD03
1174	Actively treating water through reverse osmosis creates the spectrum of huge amounts of electricity into the foreseeable future. Climate change is an imminent threat to the planet.	AIR01
12497	The idea of allowing mining to go forth in the name of jobs, when it would leave 500 year's worth of polluted water, and threaten the BWCAW is unthinkable to me.	SO01, WR111, WR115, WR195
12499	I also feel the climate change impacts of the total mining cycle need to be considered. How much Co2 would be emitted during the mining and the 500 years of ACTIVE treatment of the polluted water?	AIR01
13822	Today's mining technology does not appear to be able to guarantee protection of the environment any more than that of decades ago.	SO01
13823	Perhaps decades from now, technology will allow them to be safely extracted (they will be worth more then, than now anyway), but if not, they should never be mined.	ALT16
<b>Sender Name (Submission ID)</b> Craig Bowron (43992)		
14931	I believe their are multiple problems--among them tax structure, water quality, lack of a health impact assessment, water quality issues--and so I would ask that you not allow the mine to be built as described in the current plan.	GEN03
14932	When the nickel and copper are gone, they will shift to loss prevention--by either loosely following clean up agreements or by abandoning them altogether, thereby forcing them into the courts (whichever option minimizes the losses would be the preferred option). That's not a judgment statement, that's how capitalism works. Bankruptcy is also a tried-and-true method for minimizing losses.	FIN01
14933	I would ask you to fix the Polymet mine plan by hammering out a detailed plan that provides solid financial assurances to the current owners of the nickel and copper: Minnesotans.	FIN10
<b>Sender Name (Submission ID)</b> Craig Johnson (18071)		
3185	I believe we can set a new standard of mineral extraction that will be used as an example for generations to come. And hopefully without eight and a half years of prior scoping and evaluation.	PD28
3186	It should be understood that determination to not allow a proposed mine also involves risk. We risk allowing someone else of lower standards than ours to gain an advantage in the precious metal market.	NEPA03
<b>Sender Name (Submission ID)</b> Craig Olson (18368)		
14673	This project will produce a lot of jobs. Not only construction jobs...There is 360 full-time mining positions. And there's more than 600 related jobs that will be produced. That will produce good-paying jobs for the families that are very much needed.	SO10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Craig Prudhomme (45438)		
15707	PolyMet is proposing to create a mine that will further destroy wetlands and put at risk watersheds that include Lake Superior.	WET24, WR111, WR112
15708	This mine should not be permitted. The potential costs are too great for the potential short-term gains. And these gains will be short-termed by comparison to the costs.	PER35
15710	We think copper and nickel are valuable resources, but when we look at the one most important resource to life, fresh water, we are only now beginning to realize that it is the number one, most important resource. Clean water is finite.	WR195
<b>Sender Name (Submission ID)</b> Craig R. Miller (3491)		
223	It is very problematic that PolyMet's details about a financial assurance or a "damage deposit" the company provides are not outlined in this revised mine plan. The public does not know how much 500 years of water treatment will cost, how the company will be held responsible for centuries of costly water treatment, or how the public will be protected from liability	FIN01, FIN05, FIN10
227	not all of the polluted water will be captured and sent for treatment. Every year, 11 million gallons of polluted seepage from the tailings basin will enter groundwater and the environment without being treated. Also, every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater and the environment without being treated.	WR070
229	the model used to predict impacts to water quality has many flaws that may significantly under-represent pollution risks. Indeed, the model has been shown to be inaccurate in representing current conditions for water quality surrounding the mine site undermining confidence that it can accurately predict future water conditions	WR044, WR149, WR172, WR173, WR174, WR189
231	The proposed mine plan does not leave the site clean and maintenance free [...]Who will be paying for all of this after the mine is closed in just 20 years?	FIN01
<b>Sender Name (Submission ID)</b> Craig R. QualeyFisher (17340)		
1972	I implore you to take a stand, against allowing the mining companies, anywhere near, any waterway, tributary, stream connected to or running into a Boundary Water Area Lake Or Waterway.	WR111, WR195
2098	The residue left behind by copper mining seeps into the water, kills plant life, fish and wildlife.	VEG06
<b>Sender Name (Submission ID)</b> Craig Spry (42770)		
6680	Polymet, the Minnesota Department of Natural Resources, the United States Forest Service, the United States Army Corps of Engineers, the Minnesota and Federal Pollution Control Agencies, and many other entities have these engineers, scientists, biologist, professors, specialists, and technicians to research, study, model, engineer, and design this project. In fact, they have done [this] to death, over a decade, to protect the environment and get this right. The information and the contents of the SDEIS prove this.	PER34
6682	This is a project that will once again kick start the East Iron Range and encourage future opportunities for the entire Iron Range and surrounding areas. We are all here on the Iron Range because of mining, period.	SO10
<b>Sender Name (Submission ID)</b> craig zlimen (15451)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> craig zlimen (15451)		
671	While I appreciate the need for livable wage jobs in this generally depressed economic area, it seems the risk of wide-spread, long-term contamination of the area's water-supply far outweighs any potential benefit of a few hundred, relatively short-term jobs.	SO01
672	Currently, tourism is the one of the largest sources of jobs and revenue in and around the Iron Range. Given the tourism industry is driven almost entirely by the area's lakes, streams, and outdoor recreation opportunities, it seems absurd to consider any large-scale plan that would place those invaluable natural resources at risk.	SO02
675	It is not worth risking large-scale harm to the environment and established tourism industry for the prospect a relatively small number of jobs expected to be created by PolyMet.	SO01
1902	I sincerely hope the DNR will advocate for the long-term health of Minnesota's environment, water, and tourism and deny PolyMet's permit to mine in Northeast Minnesota.	PER35
<b>Sender Name (Submission ID)</b> craigaparsons (41998)		
2636	The location of the proposed mine is identified throughout the document as being on the Iron range, implying that it is part of the Biwabik iron formation. However I've read reports that contradict this and place this mine location in the sulfide-bearing rock of the Duluth formation.	PD31
2637	There has not been quantitative accounting of the many environmental effects on the economic outlook. Full and part time jobs have been lumped together in the analysis. Also the economic benefits of mining should be compared to a no-mining scenario.	SO04
2638	It is paramount that the technical plan for mine cleanup and water treatment be beyond reasonable question especially in light of the location of this mine so close to pristine wilderness such as the BWCAW, and Lake Superior. The SDEIS as it exists now does not meet that requirement.	PD01
2639	In the last week, it has been announced that the MPCA will soon release new standards for sulfate release into waters that are capable of growing wild rice... Because these new standards, this proposal should be delayed for further consideration until it has addressed compliance with these new rules.	PER10, WR152
2640	The report indicates unacceptably high levels of sulfide in discharge water for hundreds of years after mining ceases, yet none of the projections actually show safe levels being reached for the hundreds of years over which the models were run. How can a decision to permit be discussed without a timeframe identified where active and costly water treatment such as reverse osmosis are no longer required?	PER04, WR038
2669	Are the assumptions underpinning the studies of potential pollution caused by hydrologic and geologic activity consistent with this misclassification [of the mine being located on the Duluth formation instead of the Biwabik iron formation]?	WR007, WR087
2670	Minnesota law 6132.3200, 6d, states that financial assurance for mine cleanup must be provided by the mine owner. I am only asking that this law be followed, and that full details of the economic aspects of the cleanup need to be addressed now, as part of this SDEIS.	FIN01, FIN13, FIN14
<b>Sender Name (Submission ID)</b> Crystal Waters (11638)		
3324	The PolyMet SDEIS is still inadequate. It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	HU04, WR041
3325	The PolyMet SDEIS is still inadequate. It doesn't explore the alternatives that could reduce PolyMet's destruction of wetlands.	WET20

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Crystal Waters (11638)		
3326	The PolyMet SDEIS is still inadequate. It doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	MERC02, MERC10
3327	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin.	WET24
3328	Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	AQ05, WR107, WR108, WR156, WR158
3329	PolyMet makes a lot of rosy predictions, but the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity".	PD03
<b>Sender Name (Submission ID)</b> ctok (21718)		
9484	Fact: We hear that Polymet is reluctant to put money into a trust fund for cleanup. Question: Can they be trusted to be responsible for long term water control and reclamation?	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Curt Bush (9838)		
311	I have so very little faith that Polymet, or any mining corporation, would be trustworthy partners in understanding the critical value of water conservation and environmental protection and doing what they say they will.	WR128
313	My real hope is that the Army Corps will work with the tribal agencies.	CR06
315	My hope is that the whole darn project will be evaluated as too risky, in too sensitive an area, and should be abandoned.	PD01
1188	My real hope is that the Army Corps will work with the tribal agencies.	CR06
1396	I gotta ask you to demand a renewed environmental review based upon accurate water flow measurements at the Polymet site.	WR003
3608	As a downstream resident on the Whiteface River near Cotton, Minnesota, and because I have been learning about sulphide ore bodies once uncovered, I gotta ask you to demand a renewed environmental review based upon accurate water flow measurements at the Polymet site.	WR003
7383	I gotta ask you to demand a renewed environmental review based upon accurate water flow measurements.	WR003
7384	My hope is that the whole darn project will be evaluated as too risky, in too sensitive an area, and should be abandoned.	SO02
7385	I have so very little faith that the Minnesota DNR will look at the project from the standpoint of the critical value of water conservation and environmental protection.	PER06
14728	I gotta ask you to demand a renewed environmental review based upon accurate water flow measurements.	WR003
16235	I have so very little faith that the Minnesota DNR will look at the project from the standpoint of the critical value of water conservation and environmental protection.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Curt McNamara (7722)		
60	Mining in such a sensitive area is not compatible with our values and presents substantial risk to air and water quality	AIR11
821	...mine would destroy wetlands which we and our wildlife desperately need.	WET24
<b>Sender Name (Submission ID)</b> Curt Steinerbraun (18148)		
3586	We build products that make electricity and deliver it to your homes and your businesses. We need copper and other critical metals to build our products.	NEPA05
<b>Sender Name (Submission ID)</b> Curt Thompson (38488)		
15936	The state and federal regulators will ensure that PolyMet’s project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
15937	In the groundwater flow model in the SDEIS, water percolates through the bedrock at an extremely slow rate of travel. For this reason, the model was run for 200 to 500 years, allowing enough time for water to move through the aquifer and reach the compliance point at the boundary included in the SDEIS. It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time. It also shows the project will still meet water quality standards even that far out... This model demonstrates that PolyMet’s plans comply with Minnesota’s laws.	WR190
15938	We cannot afford to miss this job opportunity.	SO10
15939	Companies that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	PER34
<b>Sender Name (Submission ID)</b> Curtis Martinson (42773)		
6716	They can’t guarantee anything for 100 years, to say nothing about 400 plus years. They’ll end up having all the money, and we’ll end up having all the problems.	FIN01
<b>Sender Name (Submission ID)</b> Cyndy Klinksiek (4219)		
9805	The proposed copper-nickel mine may bring money into communities in the short term, but when the metals have been extracted, tax-payers will be left holding the clean-up bill.	SO01
10206	Our precious pure supplies of water are the envy of the world. We need to safeguard them for future generations.	WR195
<b>Sender Name (Submission ID)</b> Cynthia A & Russell K Hobbie (42800)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Cynthia A & Russell K Hobbie (42800)		
6955	We Minnesotans are not used to hard rock mining, and many of us do not appreciate how harmful the sulfuric acid from the tailings will be. We need to recognize the fact that grinding the rock into small particles increases the surface area exposed to water. For example, rock 1 00 meters on a side, when ground to the size of baby powder (1 0 micrometers) will have increased its surface area by a factor of 10 million. We have already seen this in "mine slime," in our taconite mines, but it does not leach acid. Slime from the proposed mine would leach sulfuric acid. The acid will be spread to places where it will do damage by the water that is already flowing through the existing tailings basin.	PD01, WR001
6955	We Minnesotans are not used to hard rock mining, and many of us do not appreciate how harmful the sulfuric acid from the tailings will be. We need to recognize the fact that grinding the rock into small particles increases the surface area exposed to water. For example, rock 1 00 meters on a side, when ground to the size of baby powder (1 0 micrometers) will have increased its surface area by a factor of 10 million. We have already seen this in "mine slime," in our taconite mines, but it does not leach acid. Slime from the proposed mine would leach sulfuric acid. The acid will be spread to places where it will do damage by the water that is already flowing through the existing tailings basin.	AQ05, PD03, WR156, WR158
6959	The number of new jobs that is projected is actually small compared to the number of existing mine jobs in the Arrowhead....The profits will go to people outside Minnesota, and probably in other countries. The profits from tourism remain in the community.	SO06
6959	The number of new jobs that is projected is actually small compared to the number of existing mine jobs in the Arrowhead....The profits will go to people outside Minnesota, and probably in other countries. The profits from tourism remain in the community.	SO02, SO06
6961	The short term effects will include excessive noise from drilling and blasting.	VEG03, VEG05
6961	The short term effects will include excessive noise from drilling and blasting.	N05
<b>Sender Name (Submission ID)</b> Cynthia Hobbie (21541)		
1293	grinding the rock into small particles increases the surface area exposed to water. ... Slime from the proposed mine would leach sulfuric acid. The acid will be spread to places where it will do damage by the water that is already flowing through the existing tailings basin.	WR001, WR108
1296	The number of new jobs that is projected [for the NorthMet Project] is actually small compared to the number of existing mine jobs in the Arrowhead.	SO06
1298	The short term effects [of the NorthMet Project] will include excessive noise from drilling and blasting.	N05
2019	The profits will go to people outside Minnesota, and probably in other countries. The profits from tourism remain in the community.	SO06
<b>Sender Name (Submission ID)</b> Cynthia Lee (14677)		
13785	PolyMet has a horrible plan which will make them rich, and then they'll duck out on taking care of their mess	FIN01
<b>Sender Name (Submission ID)</b> D Becker (17540)		
1982	With the limited environmental impact I fully support the approval of permits for this mine.	PER34
<b>Sender Name (Submission ID)</b> D Borgmann (46963)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> D Borgmann (46963)		
16657	The U.S. Forest Service does not allow strip mines on Federal land within the Superior National Forest where this proposed mine would be located. I feel it is wrong to do this land exchange to basically get around the intent of this law and it is not in the public's interest.	LAN02
16658	Sulfide mining has a track record of water contamination caused by acid mine drainage. In particular water rich areas are most vulnerable such as in the Superior National Forest where this Polymet mine is proposed. Even lower sulfide content can be quite toxic when there is a lot of waste rock which is the case for this proposed mine.	WR189
16659	Many if not most owners of mines declare bankruptcy leaving taxpayers with the cleanup costs which run into the millions of dollars.	PD25
16660	Acid mine drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred. The SDEIS has admitted treatment of water would require 200- 500 years or more.This is basically perpetual treatment. This violates Minnesota Rule (6132-3200)	FIN14, PER04, WR035
<b>Sender Name (Submission ID)</b> D K (9657)		
1361	the NorthMet Supplemental Draft Environmental Impact Statement should be deemed complete in every respect.. This project should proceed to permitting without delay	NEPA16
1362	It will also allow many of the legacy issues that exit due to past mining activities to be addressed by PolyMet in a technically sound manner in a shorter timeframe.	PD28
<b>Sender Name (Submission ID)</b> D Ross (58144)		
19889	...the strategic mining industry of Northeastern Minnesota will generate thousands of new jobs for our region. As well...will have a positive impact on local tax revenue and education funding.... PolyMet has spent more than \$1.2 million doing business with Duluth companies in 2013. We recognize that, once PolyMet receives its permits, several more Duluth area businesses will provide services and product to the Polymet Project. The positive economic impact of PolyMet will exponentially grow when construction and mining begin.	SO10
19962	PolyMet, will utilize advanced technology to meet rigorous environmental standards established by the United States Environmental Protection Agency and the State of Minnesota to ensure protection of human and environmental health.	GEN02
<b>Sender Name (Submission ID)</b> D V Sandstrom (42559)		
17056	For years this Nation has been concerned with becoming “energy independent”... Why not the same sentiment re: “metals independence”?	NEPA05
17057	To the extent that we find ourselves dependent upon foreign supplies of these resources, are we not simply shifting at much higher environmental cost (and social & economic cost I might add) the liability to countries who do not have policies in place designed to protect the environment?	SO02
17058	That many of these other countries are unwilling to invest in technologies & infrastructure designed to utilize resources without regard for the environment should be obvious... By refusing to move forward with projects such as Polymet, we in effect do more damage to the environment globally and are subsidizing atrocious policies where concern for the environment takes a back seat and stringent environmental measures are paid lip service at best.	NEPA05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> D V Sandstrom (42559)		
17059	Furthermore, refusing to utilize resources given the protections and processes we have in place is irresponsible economically and socially. Not only are wages and benefits lost to N.E., MN and our state generally but, as alluded to previously, our refusal to responsibly mine these resources means that we are subsidizing entities who, as demonstrated by their wanton disregard for the environment, obviously have little regard for economic or social stewardship.	SO06
<b>Sender Name (Submission ID)</b> dagmar romano (42447)		
6785	The SDEIS is incomplete because important issues, such as environmental assurances, are not adequately addressed.	PD01
6786	there is inadequate data to make an informed decision about the 500 year time frame that is being proposed for water treatment from the operation. In addition, how can any state agency agree to a 500 year time frame for water treatment/monitoring?	PD03
13699	The PolyMet SDEIS isn't a plan. It is an experiment that would put Minnesota's clean water at risk for hundreds of years, as stated in the document. The document doesn't provide the basic information to support its predictions.	SO01
13700	How much polluted wastewater is going back and forth through nine miles of pipes? What is the total volume of wastewater in tailings and processing residue? Just how polluted is the wastewater and waste rock piles, pits, sump ponds, the tailings basin and the hydrometallic waste dump?	PD15, PD30, PD36
13701	we can't estimate what would happen if PolyMet's unrealistic assumptions, not based on data by the way, don't come true. The project -- the SDEIS admits that the project is an experiment. On page after page it says that in the event that modeling shows violations of water quality, PolyMet will adaptively manage the problem. How does "adaptive management" as a plan sound to you?	PD05
13702	can someone help me understand how on earth we, as Minnesotans, would even consider a project that threatens to pollute our water for hundreds of years?	WR195
<b>Sender Name (Submission ID)</b> Daisy Dominguez (54221)		
17343	Environmental impact statements show that water from mines will have toxic levels of metals after 500 years. Of course it does not have to be that way. This is all preventable.	WR115
17344	I have noticed that your map is incorrect. I am sure that you are well aware of this. Giving false information and leaving out very important information is not okay. I am asking for you to redo your map correctly and show the correct length of the swap.	PD38
17345	I also find it necessary for a hydraulic conductivity test to see how much the swap and the mines could effect the boundary waters. Also there must be a water test in the boundary waters to make sure there is no chemicals in it.	WR090, WR111
17346	The boundary waters are very important and special because they are pure and clean, not too many places are left like that. You do not have the right as well as any other person to contaminate the boundary waters. You can not take your own selfish decisions and harm our environment	LU04
<b>Sender Name (Submission ID)</b> Dakota Hoska (39812)		
7328	Jobs for 200 people for 20 years? For what? Loss of rice beds, loss of wildlife habitat, loss of water security and the loss of fragile, pristine ecosystems?	SO01, VEG10, WI13, WR115

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dale & Lynie Shimmin (44631)		
12227	The long term affects on the land and water of this area would be disastrous.	WR115
<b>Sender Name (Submission ID)</b> Dale Gustafosn (28767)		
10926	The records are clear, the mining industry has a terrible record of pollution and note standing behind their statement of taking care of problems.	FIN01
10928	There is no proof that they can contain the pollution from this mining practice and only proof that they will not keep promises to protect the value of clean water and the species that thrive in that water. Once some pollution gets in the water flowing to Lake Superior it will be impossible to clean it out.	WR017, WR018, WR070, WR111
<b>Sender Name (Submission ID)</b> Dale Hegfors (42799)		
6939	I approve of Polymet mining project near Aurora. I believe that the DNR, U.S. Corps of Engineers and forest service along with the EPA, have enough information to start this project. I am sure that tall agencies, Clean Air Act, SDIES, will be watching so that Polymet mining does the right thing with our environment.	NEPA16
<b>Sender Name (Submission ID)</b> Dale Hintsala (9283)		
864	Build the capacity in the United States were it can be environmentally controlled----do not submit to building the capacity in a foreign nation were we only experience the environmental pollution from unregulated processes.	NEPA05
<b>Sender Name (Submission ID)</b> Dale Johnson (10205)		
371	The beauty and quality of Northern Minnesota is too valuable to risk for a few jobs that will end up costing the citizens of Minnesota multiple times their value in damages and clean-up.	SO01
13798	A toxic release of chemicals/acids wold be devastating and take several lifetimes to remediate. The cost would be born by the residents and visitors who cherish the land and the citizens of the state in dollar terms. The mining industry is renowned for filing bankruptcy and walking away whenever there is an incident they guaranteed would never happen	FIN10
<b>Sender Name (Submission ID)</b> Dale Lockwood (43574)		
9938	copper sulfate..... as a herbicide,pesticide,fishicide etc.. Can be deadly at very low levels..... Levels may even be lower than the levels Wild Rice can tolerate. Also any acidification of the water will cause soluble mercury levels to rise and work into the food chain,causing levels in fish to rise,which recomendations for people to eat are already very limited in the area	VEG04, WR001, WR113, WR156
<b>Sender Name (Submission ID)</b> Dale Long (18101)		
13467	This is not just about the construction jobs and building this project, but it is also about the long-term jobs to run the plant, as well as the spin-off jobs and positive effects to our area communities.	SO10
<b>Sender Name (Submission ID)</b> Dale Olson (4166)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dale Olson (4166)		
9860	the four legged brothers and sisters don't even use money but like the two-legged they need water to live. there are alternatives to destroying eleven percent of the fresh water of the world....	WI01
<b>Sender Name (Submission ID)</b> Dale Swanson (20020)		
14466	I think that exploration for minerals and mining can be done in a manner that would not be detrimental to our environment. I am an environmentalist, but I also see the need to put people to work.	NEPA05
<b>Sender Name (Submission ID)</b> Dan Allosso (40139)		
15310	given Glencore Xstrata's well-documented irresponsibility as a long-term steward of the environment, I think any claims the corporation makes about its commitment to multi-decade or even centuries-long containment of environmental externalities should be treated as nonsense. To put this in the plainest English possible, Glencore Xstrata intends to treat northern Minnesota as a third-world resource provider and waste sink.	PD01
15311	I live in northern Minnesota, and I have no doubt that given a thorough understanding of the issues, none of my neighbors would willingly trade our environment for a short-term solution to economic problems that could be solved in a variety of ways that wouldn't involve making our home unlivable.	SO01
<b>Sender Name (Submission ID)</b> Dan Anderson (38624)		
14067	We have confidence in the DNR and believe the SDEIS process for PolyMet Mining's proposed NorthMet project has been sound and thorough.	NEPA16
14068	In the groundwater flow model in the SDEIS, water percolates through the bedrock at an extremely slow rate of travel. For this reason, the model was run for 200 to 500 years, allowing enough time for water to move through the aquifer and reach the compliance point at the boundary included in the SDEIS. It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time.	WR190
14069	The model used to calculate the alleged economic benefits of the mine takes into account the costs to the environment and the displacement of other economic activity. Tribal rights to hunt, fish, and gather under the 1854 Treaty will not be adversely affected; nothing is the same as it was when the treaty was signed.	SO10
14070	PolyMet's planned mine layout minimizes impacts to wetlands, and its reclamation and mitigation plans will replace the wetlands that are lost due to mining. In fact, PolyMet will restore and protect more wetlands than it impacts.	WET25
14071	PolyMet will have dramatic, positive socioeconomic impacts to a region that has been built on mining. This project is located in an area that supports mining and the jobs it will bring.	SO10
14072	The land exchange with the U.S. Forest Service will open up new public recreational opportunities for all Minnesotans.	LU01
<b>Sender Name (Submission ID)</b> Dan Burnett (41570)		
6369	It is simply foolish to ask a company to provide water treatment for the area for a length of time that is over three centuries. If the contaminated water is projected to be undrinkable for longer than white people have been politically organized in a meaningful way then we should not allow the water a chance to be contaminated in the first place. It is irresponsible to expect anyone to be obligated for such a period of time.	WR037

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dan Carn (18110)		
13474	We have a great opportunity here. This is a world-class resource. And I think this is a stepping-off point that has an awful lot of merit...This is already an industrial site. We already have a huge facility there. We're using the existing tailings basin. And we have the railroad infrastructure in there. The only thing we're doing is moving the pit area	SO10
<b>Sender Name (Submission ID)</b> Dan Cooke (6426)		
1071	I do not believe the few jobs that this will bring to the state is worth the potential of long standing environmental impact.	SO01
<b>Sender Name (Submission ID)</b> DAN DEMARINO (21971)		
3303	The seemingly never ending long term assurances voiced by those opposing the mine may be able to be resolved by the requirement to have long term bond assurance.	FIN08
3304	The hard points are that families will be able to survive with a great quality of life if they are allowed to have an income. The mine will provide that. The community will be able to grow economically.	SO10
<b>Sender Name (Submission ID)</b> Dan Dimick (57969)		
19876	The economic gains are outweighed by long term environmental risks.	SO01
<b>Sender Name (Submission ID)</b> Dan G. Eischens (7524)		
780	I think that the environment would be better off after the sulfides are no longer exposed to the effects of climate after the reclamation work is done.	PD05
781	This is just the type of mining project this state needs to boost the economy and school aids it delivers, along with jobs and a supply source of much needed copper.	SO10
<b>Sender Name (Submission ID)</b> Dan Harp (42532)		
2443	What better place to do this project? Everything we do has an impact, and we should make our impact as small as possible. Being this is already an industrial site, this is about as good as it gets. There's already a huge facility and a tailings basin that can be re-used.	SO10
2444	We need these metals and PolyMet can mine them, while having a plan in place to reduce the probability of risk. If you want to eliminate all risk, you can't do anything and will have nothing.	PD28
15576	If we don't develop an industry with a world-class resource here, we can expect to be extorted by a place that can provide the metals we need – and that would be a huge cost.	NEPA05
15579	about the long-term costs of monitoring... they'll have to keep monitoring, but that's not very expensive. Costs will be minimal.	FIN17
15580	My opinion is that when the mined rock is first exposed, there will be a lot of [water] treatment needed. And that may be the case for 15 to 20 years. But after that, the likelihood of any deterioration of rock will drop off exponentially. After a time, I have to believe it will be simply standard levels of constituents in the water – as if the mine had never happened. Sure, they'll have to keep monitoring, but that's not very expensive. Costs will be minimal.	WR190

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dan Houle (3641)		
427	20 years of destruction for a few labor jobs and exporting our “precious metals” with a 500 hundred year price tag just doesn’t make sense. The time is not right... we should save it for the future generations when it means more than just a few jobs.	SO01
11758	THE TIME IS JUST NOT RIGHT AND THERE IS NO PROVEN SYSTEM AT THIS TIME TO MINE COPPER NICKEL WITHOUT POLLUTION! ... We have one of the worlds largest supply of fresh water. Any degree of pollution is incomprehensible for a few jobs.	SO02, WR115, WR128
<b>Sender Name (Submission ID)</b> Dan Humay (18062)		
3169	I think my initial concerns were triggered by reading that copper mining has never been conducted anywhere in the world without producing grave pollution of water resources in the mining area.	WR023
3170	I'm especially concerned about the contamination of mercury from the mining operation. Northeast Minnesota already has a serious problem with mercury. And the Minnesota Pollution Control Agency has listed a number of water, rivers, lakes, and streams in this area as impaired with methalized mercury found in fish tissue. So there are some warnings about eating levels of fish beyond a certain point.	MERC02
3171	Any increase in the level of mercury in the water table, whether it be in a stream, river, lake or aquifer is not acceptable. And I don't see where they can give any assurance that this will be done.	MERC01
3173	To date I think they've tested 1,465 children and they found their bodies are contaminated with mercury poisoning. And yet we're going to allow a mining company to create a situation that will only exacerbate this. I think that's unconscionable. For 360 jobs for 20 years that's an embarrassment that we will perpetuate a widespread health problem to that end.	SO01
3432	Right now, today, as we sit here, in this watershed, the Minnesota Pollution Control Agency has classified dozens of strange rivers and lakes as impaired. What would make them impaired? Levels of mercury above what are considered to be safe. Methylyzed mercury appearing in fish tissue.	MERC01
3437	Sixteen million gallons of water this year, the next year, the next year, the next year, the next year. How much mercury is that? The EIS really falls short in dealing with mercury, and I think behooves you to hold them accountable. ... We cannot put at risk children who are innocent residents the way we are now. 1,675 kids have been tested positive [for elevated levels of mercury] so far, and I think that's unconscionable --in the name of jobs or minerals or anything else.	MERC03
<b>Sender Name (Submission ID)</b> Dan Iler (17693)		
1984	With a projected mine life of twenty years and a projected water clean up of the mine site for a minimum of 200 years and 500 years at the plant site the risk to reward is skewed to the way too risky side!	SO01, WR037, WR195
1985	It is impossible to account for all the variables [such as] floods, cracks in bedrock allowing seepage to ground water, plants and roots tearing into a possible synthetic cover over the tailings pile ... inevitable mechanical breakdowns, leaks or breaks in piping used to move waste water, human error, or.....?	FIN05
1986	it is unrealistic to think there is a magic formula to get a monetary number for 200 - 500 years of water clean up and reclamation. ... there is not a company out there that has a track record of being in business for 500 years. It seems inevitable that eventually Minnesotans will be on the hook to cover the cost of clean up.	FIN01, FIN05, FIN10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dan Iler (17693)		
1987	Once all the valuable minerals are extracted from the mine site and it is no longer profitable they will close up shop and file bankruptcy to evade clean up cost.	FIN01
2117	The track record of mining companies abandoning mine sites that are no longer profitable is long. The EPA has designated many of these sites as "superfund" sites, leaving tax payers to shoulder the cost of cleanup (if clean up is even possible at all	FIN10
2118	...twenty years worth of jobs mining the precious metals is not worth hundreds of years of environmentally disastrous clean up!!!	SO01
<b>Sender Name (Submission ID)</b> Dan Iverson (19944)		
1548	The DNR and the Corp of Engineers and to a lesser extent the US Forest Service has no issues with the potential impact of sulfide mining to the recreational treasure Minnesota posses and has, until recently, protected from the grasping hands of logging and mining interests.	LU06
14840	Obviously, the deal was in the bag as it always had been and the DNR was just going through the motions, a little dance all government agencies must do to appease the public with a show of democracy. Your actions and others in government who have been tasked with preserving Minnesota's legacy of clean water and quality of life have failed us.	NEPA15
19502	Twenty years of promised prosperity for a few is a poor exchange for an eternity of poisoned lakes and streams.	SO01
<b>Sender Name (Submission ID)</b> Dan Jobin (45242)		
9064	The MPCA told me there would be damage to the liners, holes and punctures so some highly acid waste would seep directly into the ground and would not be appropriately treated. I am also questioning the viability of these liners over the long run of 50 to 100 years, especially when it will be constantly exposed to an acidic environment.	WR127
9066	High levels of lead and aluminum due to the overall mitigation process of treating this water have not been addressed	WR064
9075	After attending this open house I did not walk away with the confidence or complete certainty there would not be significant impact on the water in this area.	WR115
<b>Sender Name (Submission ID)</b> Dan Johnson (19966)		
1560	In spite of the EIS there have never been a documented metals operation like this that has not led to surface and ground water pollution surrounding the mines.	WR023
1561	In spite of the EIS there have never been a documented metals operation like this that has not led to surface and ground water pollution surrounding the mines.	PD26
<b>Sender Name (Submission ID)</b> Dan La Vigne (18244)		
13627	My first one is 200 years of water-pollution treatment from the mine site and 500 years of pollution seeping from the pit is not a viable solution to prevent an environmental catastrophe.	WR195
13628	Balanced against some 250 to 300 jobs for an estimated 20 years of employment is not an equitable deal for Minnesota residents.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dan La Vigne (18244)		
13630	Even current tailing ponds leak, for example, the one at Minntac. It has been out of compliance for years. How is PolyMet going to do better?	PD07
13632	Putting money aside in a fund is not feasible, especially for 200 to 500 years. Who can predict the cost? Besides, human nature being what it is, the probability of that fund remaining untouched is next to nil. I can easily imagine it being raided to reduce taxes or for something else.	FIN01, FIN05, FIN08
<b>Sender Name (Submission ID)</b> Dan Nelson (38401)		
9619	20 years of mining is not enough to pay for hundreds of years of pollution risk and monitoring when the company could easily renege on its pledges by selling it's assets or opting for bankruptcy in the case of a disaster.	FIN01, FIN11
13765	Water Pollution - there are no sulfide mining operations that have not had problems and I do not believe PolyMet has shown that they will prevent any major pollution problems. The tailings and mine waste are reactive for too long a time period to take this lightly.	WR001, WR023, WR035
13766	Precedence setting - there will be other permit requests and if this first permit is put through without it being bullet proof then other companies will use that as the benchmark. So even if Polymet, by some stroke of luck, does everything right and does not have an issue, other companies may have issues that they can't handle. So Polymet, as the first one down the pipe, needs to be conservative in their projections and promises and liberal in funding for all the risks now and for hundreds of years.	PER07
13767	Job Outlook - Any pollution problems from this project will negatively impact the tourism industry jobs for far more than the 20 years of mining jobs.	SO02
13768	Thank you for your time and consideration and the very professionally run public meetings on this topic.	NEPA17
<b>Sender Name (Submission ID)</b> Dan Parsow (57507)		
19503	I feel strongly that they have put together an excellent team of professionals and that this project will meet and exceed all environmental standards. In addition this project will bring much needed jobs and tax revenue to the area.	SO10
<b>Sender Name (Submission ID)</b> Dan Petrella (40134)		
15302	Water in Northeastern Minnesota doesn't soak into soil because the soil is primarily rock. Water simply runs through the rocks and directly into the rivers. We found good solutions regarding the mining of taconite and I'm sure we can find a good ecological solution to copper-nickel mining if we deal with the honest facts. I urge we find other ways then is currently proposed to dispose of the water tailings from the copper-nickel mining.	ALT13
<b>Sender Name (Submission ID)</b> Dan Steinhacker (52226)		
12957	the history of copper sulfide mining repeatedly shows a short window of increased employment and a certain future management of contaminates that remain long after the economic benefits and Polymet have gone.	SO01
12958	The lackluster initial proposal by Polymet is indication that any mining in Minnesota will be business as usual and business as usual with copper sulfide mining has a short window of benefit, generations worth of contamination and local communities and states left to deal with the mess.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Dan Sullivan (11327)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dan Sullivan (11327)		
803	The Polymet proposal does not sufficiently address the amount of money that should be set aside for environmental degradation. The mining industry has a long history of declaring bankruptcy and leaving taxpayers with the bill.	FIN01, FIN05, FIN10
805	The risks of this project are so much higher than the reward and I am opposed to it.	SO01
<b>Sender Name (Submission ID)</b> Dan Turpening (58161)		
19918	I am very much opposed to the Polymet mine. The environmental risks are too great in my opinion.	GT01
<b>Sender Name (Submission ID)</b> Dan Waters (18123)		
13504	All these things point to the fact that Ely and the entire East Range needs mining. This is what the range was built on. This is what will sustain Ely and the rest of the range is mining. We can have both. We can have mining. We can have clean water. We can have tourism. There's no reason not to have any of those.	SO10
<b>Sender Name (Submission ID)</b> Dana Harth (50549)		
11007	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR060, WR181, WR182, WR195
13294	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
13920	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR060, WR181, WR182, WR195
<b>Sender Name (Submission ID)</b> Dana L Jackson (54916)		
19325	The prospect of allowing potential long term damage to lake Superior and St. Louis River waters which flow into the lake --just for a short twenty years of copper and nickel extraction-is extremely serious. We cannot get this wrong.	WR111
19326	The water quality model in the SDEIS predicts that the Northmet Project water quality effects would not exceed the evaluation criteria at the P90 level except for aluminum and lead. These projections do not seem to take extreme weather events over a long period of time into consideration.	WR057, WR176, WR180
19327	My main concern with the SDEIS is the inadequate plan for dealing with financial assurances that will only be covered in the negotiations referred to as the Permit to Mine, which will be handled by the Minnesota DNR. The SDEIS does not provide enough information on financial assurances to confirm that amounts, timing, and safety are going to be met, over the long haul. A very thorough initial discussion is needed in the SDEIS.	FIN05, FIN13
19328	Also, the DNR Division of Lands & Minerals is the only authority for protecting Minnesota taxpayers and Minnesota natural resources from the consequences of inadequate financial assurances. DNR by virtue of its mission charge is a conflicted agency. The State of MN directs the DNR to "develop" these mineral resources in addition to the charge that the development meets environmentally acceptable outcomes. We have considerable history in MN that DNR has not always enforced regulations it is charged to enforce.	FIN10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dana L Jackson (54916)		
19329	No number of calculations could result in an adequate financial assurance for 500 years. Allowing a project design in the SDEIS that accepts 200-500 years of post operation treatment is not acceptable. However, that post operation monitoring should be paid for by Polymet for as long as is needed.	FIN01, FIN05, FIN11
19330	North Met should be required to complete the reclamation, and remainder treatment phase of the mine in no more than 10-15 years after mining is done. The SDEIS should require such project design and build financial assurances on that basis. Allowing up to a decade a for post mining obligations are reasonable.	FIN05
<b>Sender Name (Submission ID)</b> Dana Lansky (43508)		
8078	unless the PolyMet NorthMet SDEIS bases all of its conclusions about the next five hundred years on the assumption that our climate situation is likely to be significantly changed for the worse, it is not taking reality into consideration.	AIR01
8081	Even if some governments hold up well under the environmental stresses to come, it seems extremely unlikely that all governments and systems that exist today will still exist five hundred years from now or even one hundred years from now.	SO02
8085	if humans don't survive the coming changes (and aren't around to continue water treatment schemes), that doesn't mean that no animals will. Shouldn't we be doing what we can to give as many life forms as possible a fighting chance for survival?	WI06, WR128
16100	please make sure the PolyMet NorthMet SDEIS explicitly states the assumptions about Minnesota's climate, economy, society, water security, food security, and political system for the next five hundred years; upon which its conclusions depend. And please require that every one of those assumptions is backed up with strong evidence that those assumptions can be dependably relied upon for the next five hundred years.	PD29
16101	Any sulfide mining proposal that doesn't address and plan for the reality that our climate situation will deteriorate is not addressing everything it should.	PD22
16102	Considering that some governments may collapse and climate-harming shipping and air travel could get banned, any scenario that involves the ongoing need for any materials and technologies whatsoever that are not easily and completely obtainable locally should be dismissed without any further consideration.	PD22
16103	Do PolyMet's water treatment plans require continuing access for hundreds of years to materials that are not easily obtainable locally? Will it be possible for Minnesotans to assemble such water treatment mechanisms themselves even if they no longer have access to sophisticated technology? Will local communities have access to everything they need to clean up all water pollution that occurs if mistakes are made or disasters happen?	WR035, WR128
16106	It is well known that clean water will become increasingly scarce. And no amount of money could possibly make up for anything that could decrease the likelihood that surviving Minnesotans have access to sufficient healthy water to drink and healthy food to eat.	SO01
16107	it is unreasonable for Minnesota Department of Natural Resources officials to accept mining proposals that could further undermine the human rights of Minnesotans based on such hopes alone.	PER35
16108	Please make sure the PolyMet NorthMet SDEIS provides comprehensive plans for the full range of possible disaster and failure scenarios that could take place over the next five hundred years, and explains how all of those possible scenarios could be addressed with local materials, by local people experiencing environmentally stressful circumstances, without the aid of a monetary system, and without the aid of sophisticated technology.	PD22

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dana McCarthy (44298)		
10590	There are also insufficient economic guarantees to address pollution issues in the event that the company goes bankrupt.	FIN01
10592	The studies done to support the PolyMet mine project have been deeply flawed and do not adequately protect our environment.	NEPA15
<b>Sender Name (Submission ID)</b> D'Andre Wilson (54216)		
17669	Sulfur pollutes water sulfuric acid. And it decreases they're PH. And fish die because of the acid that goes in the water and it effects the fish.	WR001, WR113
17671	[Mining] can also mess up our trees for sight-seeing.	LU04
<b>Sender Name (Submission ID)</b> Danette Vassilopoulos (39497)		
7836	The SDEIS for the Poly Met Mining Project is flawed and does not guarantee that sulfide mining can be done in Minnesota without seriously harming water and habitat.	NEPA08
7841	It seems an absurd assumption that water treatment for hundreds of years is a reasonable expectation... The major impact to the water shed is too complicated to know what the outcome will be in all scenarios.	WR195
7845	There are no models for replacing the types of habitats that will be destroyed [by the NorthMet mining project].	VEG03, VEG05
13433	The major impact to the water shed is too complicated to know what the outcome will be in all scenarios.	WR189
<b>Sender Name (Submission ID)</b> Daniel Belgum-Blad (36347)		
3778	I am convinced that Polymet's and Twin Metals' plan will not keep our BWCA and surrounding rivers and lakes (watersheds) safe.	WILD02
3779	The sulfuric acid produced by this kind of mining is known to leach into rock and dissolve compounds that are toxic and that can then leach into waters -- impacting birds, fish, amphibians, and the whole web of life!	WI04, WR001
3780	Polymet's mine would destroy 1000 acres of irretreivable wetlands. We already have lost most of our wetlands in Minnesota. We can't afford to lose more.	WET24
13733	I realize jobs are important. But,the long-term risks [of the PolyMet mine] do not justify the short-term "gains" -- for anyone!	SO01
<b>Sender Name (Submission ID)</b> Daniel Berg (50540)		
16976	Why give jobs to China, this is a global economy, use your heads and let mining be a part of the economy.	SO10
<b>Sender Name (Submission ID)</b> Daniel Butler (6194)		
1181	I would also like to make the point that the public input for the process is somewhat unproductive and at times unreasonable. Rather than open all of this public opinion why doeant's the DNR simply have the best pfeessionla is a field determine if the mining is reasonable and allow the operation to proceed.	NEPA11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Daniel Drehmel (39602)		
6662	mining has historically put strain on the surrounding communities via the boom/bust cycle that tends to follow an influx of capital and workers in mining towns/areas.	SO02
13481	As northern MN is a beautiful and wild area that houses countless treasures that are uniquely ours and of great importance to the ecosystems that comprise northern MN, allowing potentially harmful mining practices to be used in advance of a full exploration of all options and a full report of the environmental consequences within that range would be irresponsible.	NEPA01
13482	Open pit mining is an abhorrently destructive practice that leaves landscapes irreparably damaged...fight for the health of MN's gateway to the north as our voice in a position to be heard.	LU04
<b>Sender Name (Submission ID)</b> Daniel E Pearson (11609)		
3292	Poly-met, the unrighteous, will sit here and lie to you stating that there mine is for the people when in fact there mine is only good for the profit of a select few that have taken a path away from god, away from love, as they now put profit and power over the lives of others..	SO02
3292	Poly-met, the unrighteous, will sit here and lie to you stating that there mine is for the people when in fact there mine is only good for the profit of a select few that have taken a path away from god, away from love, as they now put profit and power over the lives of others..	SO02
<b>Sender Name (Submission ID)</b> Daniel Engelhart (39271)		
7189	Sulfide mining cannot be done responsibly and The studies have already shown that.	PER35
12691	The proof is that no sulfide mine can escape the terrible pollutin that comes from this. The Jobs argument is also false given that mechanization has changed the way mining is done.	SO01
<b>Sender Name (Submission ID)</b> Daniel H Mundt (54769)		
19764	No one knows how the migration of water will actually occur in this large area... a number of critical issues do not have answers or that the information, such as water, is incorrect.	WR063, WR072, WR143, WR146, WR147
19765	The amount and nature of the contamination and pollution of the ground water, the water in lakes and streams, and the wetlands in this large area will be because of the release of the adverse material by the proposed PolyMet mining process this is at best a "guestimation"... no one is able to tell us what will actually happen and how much it is going to cost for any type of remediation that will be effective or not nor do we know not just what treatment will be used, also involved for how long and how large	PD01
19766	Further, the destruction of flora and fauna and contamination of the water is permanent and is not reversibile. No amount of money will restore what has been lost... We know that we have had major problems with frogs because of water contamination since the frogs are appearing with a great number of abnormalities or disappearing totally... We have had stream pollution of trout and salmon and lake pollutions of walleye, northern, bass, and pan fish for a variety of reasons we never anticipated and still do not understand.	VEG06, WI04
19767	We know that many other operations will want licensing to do what PolyMet wants to do in the same and contiguous areas relative to mining of the same minerals and metals that PolyMet wants to mine. Overload will be the obvious result.	CU04
19768	Creation of jobs is a viable concern. However, this cannot justify "selling our heritage for a mess of pottage".	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Daniel Hollenhorst (40765)		
10577	The scale of the proposal is so overwhelming and the technology so unproven that it appears that a failure is all too possible - and at what cost?	PD32
14169	We know that water is so mobile that any failure will lead to immediate leakage. Minnesota is known for its 10,000 lakes. We cannot accept the potential of seriously polluting pristine areas.	WR070, WR126
14170	How can you assure that precious Minnesota water and land resources will be preserved and protected?	GEN01
<b>Sender Name (Submission ID)</b> Daniel J. Peters (38636)		
11870	the risks to MN water quality, at a time when potable water is becoming more scarce and valuable, is too great.	WR111
11873	I do not trust PolyMet or its parent corporation, and suspect they will simply declare bankruptcy and walk away with their profits, leaving the taxpayers of the state to foot the bill for potentially centuries of water pollution mitigation.	FIN01
11874	All that risk for 5 years of jobs for a few hundred people?	SO01
<b>Sender Name (Submission ID)</b> Daniel Merfeld (57367)		
19605	This project will not only provide MUCH NEEDED jobs both now and in the future, but will also create many off-shoot jobs in the process.	SO10
19606	When it comes to the impact on the environment, all I ask is that the state of MN keep a close eye on how the plant is being run, as you do with all the current mines in the state. Continue to monitor what the mines put back into the environment and regulate it as you have been.	PER35
19607	Between mining and logging, these two jobs are the life-blood of Northern MN. We need these jobs or else our communities will quickly die out. Even Ely is not able to survive on tourism alone in our current economy. WE NEED MINING IN MN.	SO10
<b>Sender Name (Submission ID)</b> Daniel Mettner (47063)		
16276	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR115
16277	In my opinion, the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
16280	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	MERC02, WR041, WR115, WR189
16281	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Daniel Mettner (47063)		
16283	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR017
16289	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	WR012
16291	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17, WR067
16292	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won’t allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards... This project would violate water quality standards for generations to come.	WR189, WR202
<b>Sender Name (Submission ID)</b> Daniel Moran (58023)		
19834	Any times we destroy wet lands we add co2 to the atmosphere and this causes global warming	AIR01
19858	I support the no action alternative.	NEPA15
<b>Sender Name (Submission ID)</b> Daniel Olson (21186)		
2013	Our scientific capabilities are great, but we are simply not smart enough to know if this plan, this experiment with our northern environment, is worth the risks that it presents.	SO01
16295	There could be unforeseen damages and costs that will have to be borne by our very distant descendants.	FIN10
16297	This current situation, alone, makes prediction models for what will occur 200 to 500 years from now much less reliable. We do not have the knowledge that we need to implement this plan at this time.	FIN08
<b>Sender Name (Submission ID)</b> Daniel Otterstrom (11252)		
747	I have been following the progress of Polymet Mining and believe that they are going to be careful with the environmental issues so that the mining does not impact the land and wildlife in a negative way.	PD28
1499	They already have the resources to process the ores from mining and with them using the reverse osmosis to make sure that there are no residues left in the water to pollute the environment,	PD28
<b>Sender Name (Submission ID)</b> Daniel Pauly (42966)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Daniel Pauly (42966)	
7804	The SDEIS assessment of Tailings Basin mercury contamination conditions is fraught with systematic data integrity problems that include mathematical errors in key formulas, improper selection of data sets, and suspected sample collection errors...These flaws have resulted in SDEIS drafters reaching the erroneous conclusion that Tailings Basin mercury seepage will meet Great Lakes Initiative standards of 1.3 ng/L.	MERC04
7810	As detailed in the attached comments, the present plan for the NorthMet Tailings Basin is to reuse LTV's 60 year old unlined tailings basin that contains decades of heavy mercury loadings.	MERC20
15103	The errors and omissions in the Tailings Basin dataset have permeated the SDEIS and its supporting reports, resulting in incorrect fundamental conclusions as to current and future mercury discharges at the Tailings Basin and Waste Water Treatment Plant. In particular, the Tailings Basin and Waste Water Treatment Plant as proposed are likely to significantly increase total mercury, and especially methylmercury, loading in the Embarrass River watershed.	MERC04, MERC23
15104	In view of the data integrity issues and improper mercury discharge conclusions, the NorthMet SDEIS should review previously discarded Tailings Basin alternatives.	ALT21
15108	Of particular note are errors in the calculation for average water quality at the Tailings Basin...the preparers of the SDEIS failed to appreciate that some of their data was in the units "ng/L", and some of it was in the units "ug/L"... This failure resulted in large errors in a key SDEIS summary of mercury contamination, which incorrectly states that the majority of water seepage sites were below the Great Lakes initiative mercury level, when in fact most of these sites were actually above the Great Lakes Initiative level.	MERC04
15109	improper subsets of data: ...the SDEIS repeatedly considered only data that would show favorable mercury levels, while ignoring data to the contrary.	MERC04
15111	The Tailings Basin has four active NPDES monitoring locations that are positioned to intercept Tailings Basin seepage. ...Inexplicably, the SDEIS relies almost exclusively only on data from one of these discharge locations – the one that appears to show seepage below 1.3 ng/L. All three of the other discharge locations, including one that is better positioned relative to the likely flow of NorthMet discharges, were essentially ignored. The result is an improperly skewed assessment that mercury levels will be lower than 1.3 ng/L. Correction of this error shows mercury discharges above 1.3 ng/L.	MERC04
15112	a comprehensive review of mercury seepage data collected over time at the Tailings Basin also shows that Tailings Basin seepage will exceed Great Lakes Initiative mercury levels of 1.3 ng/L. Despite the availability of this information, it is essentially ignored in the SDEIS.	MERC04
15113	The SDEIS also relies upon a faulty mercury sequestration test that predicts remarkably low mercury levels in Tailings Basin seepage, while ignoring a superior test that does not predict significant sequestration. Specifically, the SDEIS gives great weight to a very flawed 8 hour experiment with NorthMet tailings in a flask, while never even mentioning in the SDEIS a much more comprehensive test prepared for the NorthMet site that showed mercury levels are likely to be significantly above Great Lakes Initiative standards.	MERC04
15115	The SDEIS includes an "Assessment of Existing Pond Water and Groundwater Quality at the Tailings Basin" that shows mercury seepage at nearly six times the Great Lakes standard for mercury discharges. This result is inexplicably not discussed further in the SDEIS.	MERC06, MERC20
15116	Mercury assessment errors lead to faulty WWTP design and pilot testing, as well as a defective containment system, both of which will likely lead to significant methylmercury discharges into the Embarrass River watershed	MERC04, MERC15

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Daniel Pauly (42966)	
15117	A combination of errors and faulty analysis cause the SDEIS to erroneously conclude that Tailings Basin mercury discharges will be below 1.3 ng/L... [This leads] to notable flaws: 1) failure to design and test a Waste Water Treatment Plant (WWTP) that will adequately determine viability of mercury removal; and 2) design of a discharge capture system that incorporates a wetland that will receive the majority of the mercury and sulfate from the Tailings Basin, and which will meaningful increase mercury contamination in the Embarrass River watershed.	MERC04, MERC15, MERC23
15118	The WWTP will use reverse osmosis to remove contamination from Tailings Basin seepage. The SDEIS discusses a pilot test for the WWTP that was conducted in 2012. Unfortunately, the WWTP pilot test never evaluated mercury removal using reverse osmosis...The report states that maybe as little as 20 percent, or maybe as much as 99 percent, of mercury might be removed...Even then, according to the SDEIS documents, removal of methylmercury does not appear possible using the planned WWTP design.	MERC15
15119	the NorthMet site has an inadequate mercury assessment that lead to an improperly designed pilot test, which results in tremendous uncertainty about whether PolyMet will be able to adequately remove mercury from Tailings Basin seepage and WWTP inflows.	MERC15
15120	The SDEIS seeks to address these concerns with a proposed “adaptive engineering” approach for the WWTP design and operation. An “adaptive engineering” approach is inconsistent with best practices in the literature for removal of contaminants using reverse osmosis, because each location and system has unique problems and challenges...By approaching critical issues and long term challenges with an adaptive engineering approach, the NorthMet project risks decades of uncertainty, contaminant release violations, and unforeseen costs	PD03
15121	the currently proposed NorthMet Tailings Basin has been modified since the DEIS to create a containment system outside of the Tailings Basin. The containment system will include an up to 160 acre wetland that will be receiving the mercury and sulfate laden waters from the combined LTV/NorthMet tailings... The NorthMet project’s own model data shows in great detail that most mercury and sulfate will be delivered directly to this wetland, and not to the containment system drains. Contemporary research...shows that this wetland, with its mixture of mercury, sulfate, and organic matter, is a prime environment for methylation of mercury.	MERC09
15122	recent research by government investigators in Minnesota in the last few years has shown shockingly high levels of methylmercury in wetlands, including methylmercury spikes at the toe of taconite tailing basins. The SDEIS never asks what will happen to that methylmercury. It is likely that some of it is going to be carried to the WWTP, but as the WWTP pilot test itself reports, there is no plan for removing it...Current research shows it will be absorbed by everything from mosquitos to earthworms, and will then travel up the food chain throughout the Embarrass River watershed.	MERC02, MERC09, MERC15
15123	Tailing Basin Alternatives were Prematurely and Improperly Eliminated...the present plan for the NorthMet Tailings Basin is to reuse LTV’s 60 year old unlined tailings basin that contains decades of heavy mercury loadings. The existing LTV tailings basin has been drying out since 2001, and seepage volumes have declined. As noted in the SDEIS with reference to the No Action Alternative, the LTV tailings basin should continue to dry out in coming years, with a concurrent drop in contaminated discharges.	ALT10
15124	...two alternatives, at a minimum, should have been considered more thoroughly to see if they could have avoided the problems of perching a new unlined basin on top of an old unlined basin: either (a) putting a liner between the basins; or (b) locating the new basin somewhere other than on top of an old unlined basin. Both of these alternatives offer significant improvements in regards to preventing release of mercury from the existing LTV tailings basin, avoid the interaction of seepage water between two different types of tailings, and allow for what will likely be a significantly less complex and less expensive waste water treatment facility...I believe these alternatives were prematurely dismissed because DEIS and SDEIS preparers overlooked the fact that that mercury contamination would be an issue	ALT10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Daniel Pauly (42966)		
15125	it will be too late in 10 or 20 years, once the Tailings Basin has been filled, to find out that there might have been a better and cheaper way. Should the “adaptive engineering” approach to the WWTP prove unworkable for long term water treatment, it will be too late...to segregate the NorthMet tailings and LTV tailings.	PD07
<b>Sender Name (Submission ID)</b> Daniel Schutte (11618)		
2299	The final destination for the metals produced by this mine should be determined.If we as a country are concerned about losing our status as a global super power, we should not be extracting and providing the resources that other countries are limited by so they can continue their growth. This project makes PolyMet rich in the short-term, and bleeds our country of valuable resources.	PD25, SO02
2299	The final destination for the metals produced by this mine should be determined.If we as a country are concerned about losing our status as a global super power, we should not be extracting and providing the resources that other countries are limited by so they can continue their growth. This project makes PolyMet rich in the short-term, and bleeds our country of valuable resources.	PD25
<b>Sender Name (Submission ID)</b> Daniel Telin (19528)		
13446	I would just like to go on record that I believe the EIS... is insufficient in that the project introduces sulfites and other contaminants into an essentially uncontaminated environment and a partially compromised St. Louis River watershed.	WR010, WR107, WR109
13447	And finally, there is no long-range plan for the treatment of the tailings and the sulfide wastewater whose treatment would run into centuries.	PD03
<b>Sender Name (Submission ID)</b> Daniel W McLaughlin (54811)		
18345	I oppose the approval of the Polymet mine...[because of] the requirement for wastewater treatment for 500 years after the mine closes. How can an accurate cost for such treatment possibly be calculated...?	FIN05
<b>Sender Name (Submission ID)</b> Daniel Zachman (44881)		
8138	The plan to mitigate waste-water run off is not adequate.	WR130
17098	It is irresponsible to expect our grandchildren to continue to clean the waste-water from our jobs project.	SO01
<b>Sender Name (Submission ID)</b> Daniel Ziegler (30041)		
10988	I hope someone other than taxpayers will pay for the clean up future mining operations.	FIN01
<b>Sender Name (Submission ID)</b> Danielle Cabrera (41695)		
2163	The gravity of losses that would be incurred as a result of the mine are much greater than the economic benefits.	SO01
<b>Sender Name (Submission ID)</b> danielle henjum (52316)		
10801	I believe that use of water for hundreds of years to clean up the mining is too precious of a resource for our people.	WR195

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	danielle henjum (52316)	
10803	If a mining is allowed try it on a scale that is only 25% of what Polymet is currently proposing for 20 years. Use this as a way to both compromise with business and environmental interests and as a way to study the impact of such mining in MN.	ALT13
<b>Sender Name (Submission ID)</b>	Danielle Lake Diver (39466)	
7172	My husband is a member of the Fond du Lac Band of Lake Superior Chippewa and he is concerned for the future of wild rice, which is a culturally important food as well as a means of economic and nutritional support for many people on Fond du Lac Reservation and throughout the Arrowhead region. If waste from open pit mining gets into wild rice beds the wild rice will die off.	VEG04
7183	If the waste [from the NorthMet mining project] reaches our ground water, we will have to leave our home.	WR041
13346	My husband is a member of the Fond du Lac Band of Lake Superior Chippewa and he is concerned for the future of wild rice, which is a culturally important food as well as a means of economic and nutritional support for many people on Fond du Lac Reservation and throughout the Arrowhead region. If waste from open pit mining gets into wild rice beds the wild rice will die off.	VEG04
<b>Sender Name (Submission ID)</b>	Danielle Sveiven (54205)	
17639	I am against building a mine up north, sulfide mining is one of the dirtiest mining types. Sulfide mining is 99% waste. The boundary waters has some of the purest watersheds, where people LOVE to go camping and canoeing. I personally love going camping up there and enjoy how clean and beautiful it is.	LU06
<b>Sender Name (Submission ID)</b>	Danielle Taylor (20033)	
1679	The proposed Polymet mine promises 300 jobs for 20 years. But it also calls for up to 500 years of monitoring and clean-up. This equation does not add up to development—it is simply extraction.	SO01
<b>Sender Name (Submission ID)</b>	Darlene Coffman (16990)	
11031	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b>	Darlene Eckert (42930)	
9809	The value of water in the future will increase as the population grows and competition for water increases...Will there be enough water to fill this pit and all the others that will need groundwater and surface water to fill their mine pits? ... By using these water resources in this manner are we lessening water availability for other purposes specifically recharge of lakes and rivers regionally?	WR181, WR182
9812	Who will own the billions of gallons of water that will be mined to fill the mine pit? .NorthMet ownership will mean they can sell it to the highest bidder...The water in the pit should remain waters of the State so that Minnesota can benefit from its resource and determine how it should be used. At a minimum, Minnesota needs to tax this resource so that a portion of the value is returned to the State.	PER03
9818	This mine pit [NorthMet] will always be a dangerous lake. There will be narrow shore land with steep drop-offs. ... during filling, the benches will be the only shore. ...This will be unsafe for children especially. The access will require continual work to allow boats and people to use it safely. So it is unlikely to become a good recreational lake.	LU06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Darlene Eckert (42930)	
9822	The proposal is to cover [the Category 1 Stockpile] with grasses for vegetation... the grass will require continual maintenance into perpetuity...it will be difficult to maintain grass on that slope as it is designed to drain water. With only 18" of soil to grow grass, the grass will be continually dry during the growing season and will need fertilization and water to maintain the grass. It will require periodic mowing or burning to maintain the cover. It will really look like a weed patch with erosion 10 stories high. Visually unappealing.	VEG05
9823	The Category 1 stockpile, as I recall will be 280 feet tall and over a mile long. It will be covered with a 40 mil cover, and 18 inches of soil. This will be about the height of a 28 story building. In this relatively flat area, it will be visible for quite a distance. It will be the size of a Butte and appear like a Mayan temple with the stepped sides...Not a pretty sight.	LU04
9825	The new butte will block the wind in addition to acting as a visual barrier. I'm uncertain of the effects of reduced wind on the climate but expect that it will create a microclimate downwind of the category 1 stockpile...This will further impact the wetlands in that area, warming the water and changing the vegetation types.	VEG07
9826	The purpose of the synthetic cover [on the Category 1 stockpile] is to reduce infiltration of rainwater thus reducing leaching of undesirable mineral into groundwater or runoff... As time goes on the permeability of the cover will increase allowing more leaching to occur and contamination to seep into ground and surface waters. By the time this occurs, NorthMet will be long gone so it will be up to the State to manage...This does not meet the legal requirements of no maintenance for closed facilities.	PER04, WR127
9829	Longterm category 1 pile options:...NorthMet should backfill this material back in the mine pit...When they have completed excavation of the first mining pit, they can transport the category 1 material back to the pit in the empty trucks as they return to the pit. Some of the category 1 pile can remain and be used for closure of the ponds.	ALT03, ALT06
9831	Longterm category 1 pile options: ...Perhaps the stockpile could be constructed in a more natural way to simulate a mountain for a future ski area. Another option would be to use the top for wind towers, although I find this visually poor it may be beneficial to surrounding communities or Allele.	ALT06
9833	The DEIS underestimated the cumulative impacts to native habitats in this region. The entire iron range, a band of land from Grand Rapids to nearly the Boundry Waters, has suffered near total destruction of the native habitat. The destruction of habitat is not from one action but a continuing series of actions including mining, urbanization and settlement among others.	CU17
9837	The property transfer portion of this proposal is truly absurd from the public point of view...In the NFS accounting system, as long as it has the same percentage of land under its jurisdiction, the trade is good. However, ... these wetlands created soon after the last ice age cannot be compared to several chunks of property in different watersheds. There is no comparison between the natural wetlands in biodiversity and productive habitat no matter how thorough the restoration is.	LAN03
9838	The iron range development has formed an almost complete barrier to wildlife movement along its length. The DEIS has identified corridors used for wild life movement, several of which are in the vicinity of either the plant site or mine pit. Through the NorthMet proposal, the corridors will be further narrowed and reduced or lengthened.	WI03
14465	The transfer of the property should not be approved as the proposed transfer properties are a great distance from the mine location proposal, ecologically of less value and fragmented compared to the proposed mine site. Mitigation rules specify that replacement land be in the same watershed.	LAN03, LAN06
<b>Sender Name (Submission ID)</b>	Darlene Haus (42865)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Darlene Haus (42865)		
8892	Our pristine wilderness and fresh water system are too high a price to pay for short-term gain [from the PolyMet project]. We should recognize a greater value in the long-term health of our citizens by protecting our environment, promoting more recycling and seeking sustainable long-term investments.	SO02, WILD02
8892	Our pristine wilderness and fresh water system are too high a price to pay for short-term gain [from the PolyMet project]. We should recognize a greater value in the long-term health of our citizens by protecting our environment, promoting more recycling and seeking sustainable long-term investments.	WILD02
18101	How can we put a price on the most beautiful, unspoiled part of our state?	SO01
18101	How can we put a price on the most beautiful, unspoiled part of our state?	SO01
<b>Sender Name (Submission ID)</b> Darlene Jackson (42537)		
15589	PolyMet has gone above & beyond all necessary environmental studies & it is time to move on & get started. We need our young people to move back for good paying jobs. They buy & build houses, buy cars, furniture, gas, food, etc. They have kids to fill our schools again. Spin off jobs & businesses will survive.	SO10
<b>Sender Name (Submission ID)</b> Darrell and Delores White (57243)		
17367	There is a high risk of pollution to our water, land and wild life.	WI04
17368	Tourism will be ruined for years in this area.	SO02
17369	Cleanup is expensive; they should have “billions” in a cleanup fund which no one can use except what it’s intended for.	FIN01, FIN05, FIN08
<b>Sender Name (Submission ID)</b> Darrell Godbout (18073)		
13269	how many small towns there are who would love to have a project like this built in their small town to bring up their community, their schools, small businesses, and all of us that have had kids have to send them off somewhere else to go to work. Here's an opportunity we can have our kids stay right here, Hoyt Lakes, Aurora, the Iron Range, and get a job and stay here. I think that's very important.	SO10
13271	Here, we got a company that's going to do it clean. We won't have to import this stuff no more. We can sell it right here in Northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Darren Froehle (54641)		
18016	According to the Minnesota Department of Revenue, in 2011 tourism in Northeastern Minnesota generated over 700 million dollars and provided private sector employment to 16,000 people. Any denigration of our natural resources would put this money at risk.	SO02
18018	Polymet's mining plan is an unproven process, proposed by a junior mining company with no current operation to evaluate. They offer us only theoretical models with no real world testing.	PD23

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Darren Froehle (54641)		
18019	Demanding full financial assurance in the form of a full bond against potential cleanup costs should be a minimum requirement before proceeding with any new, high-risk mining; however, even that would still not safeguard our waters from contamination.	FIN08
<b>Sender Name (Submission ID)</b> Dave Cicmil (6190)		
1054	With the time, research, and money that has been invested towards this project and Polymet's commitment to the environment, providing well-paying jobs and tax revenue, while providing the metals so badly needed to improve our quality of life.	SO10
<b>Sender Name (Submission ID)</b> Dave Clapper (17001)		
1640	When an opportunity like PolyMet comes around to mine the world's largest cooper reserves, we owe it to the region to create hundreds if not thousands, of jobs ... Our economy could use a boost in that region	SO10
2086	I for one believe that PolyMet Mining would operate the mine responsibly and protect the long-term environmental concerns.	PD28
<b>Sender Name (Submission ID)</b> Dave Crawford (38374)		
11210	The PolyMet SDEIS fails to acknowledge the Tribal Cooperating Agencies' position that there will be a need for containment or treatment of contamination from mine waste, mine pit, and tailings pile in perpetuity. Require the SDEIS to be redone to include this testimony and an objectively substantiated response from PolyMet.	WR035
11213	The PolyMet SDEIS does not adequately substantiate PolyMet's claim that 99.37 percent of the seepage from the tailings pile will be captured and that no contaminants will seep from the mine waste rock pile. Require the SDEIS to be redone to provide verifiable substantiation of claims of protection of surface waters from contamination.	WR018, WR020, WR021, WR070
11214	Damage to wetlands surrounding the project site and direct destruction of 913 acres of wetlands by the project are inadequately mitigated. The majority of mitigation for direct destruction will take place outside the Lake Superior Basin and therefore does not mitigate the impact of the project on the Lake Superior Basin. There is no plan to replace most of the indirectly damaged wetlands which will likely be compromised in the area surrounding the project. Deny the Section 404 wetlands destruction permit and require a reassessment in the SDEIS of likely impacts to surrounding wetlands outside the project footprint.	COE01, COE02
11216	The PolyMet SDEIS does not adequately assess the potential impacts of contaminant seepage through existing bedrock fractures and through additional fractures which may result from routine blasting operations at the mine pit. Require the SDEIS be redone to accurately address these impacts.	WR012, WR016
11217	The PolyMet Land Exchange would result in net losses of thousands of acres of high biodiversity plant communities, floodplains, and mature forest. Deny the land exchange in both of its two proposed alternatives.	VEG02, VEG03
11219	The PolyMet SDEIS lacks a health risk assessment which sufficiently addresses likely impacts to PolyMet workers' health and the effects of airborne and seepage contaminants on drinking water wells, surface waters and their human-consumable resources of fish and wild rice, and on aquatic and terrestrial wildlife throughout the watershed, including threatened and special concern species. Require a health risk assessment.	HU04, VEG04, VEG06, WI04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dave Crawford (38374)		
11221	The PolyMet SDEIS fails to explore alternatives such as comparing an underground mining alternative with the proposed open pit mine; placing waste rock back into the pit; placing liners under the waste rock pile and tailings piles; or implementing engineering solutions to reduce water drainage away from Partridge River Watershed wetlands and streams. Require a new SDEIS which documents these alternatives and compares them with the current proposal.	ALT06, ALT07
11223	Deny PolyMet a mining permit until all of these inadequacies are corrected with well-substantiated data and with guaranteed measures to negate adverse impacts for the entire expected duration of the problem.* This is of particular importance because the precedent which is set in allowing a hard rock mining permit in sulfide-bearing rock will set the bar for any subsequent applications for similar mining.	PER35
11229	Mining companies are temporary entities, but the PolyMet proposal creates a permanent problem. Regulatory oversight is not sufficient unless it guarantees that the party initiating a proposal will take, and be held to, all of the responsibilities for all costs and damages, present and future, which may arise as a result of implementing the proposal. If the initiating party can't make this guarantee, the proposal should be denied.	PER03
<b>Sender Name (Submission ID)</b> Dave Ethier (43337)		
11237	The PolyMet NorthMet SDEIS contains inadequate analysis of risks to the citizens and taxpayers of Minnesota and the impact this project will have on water quality.	HU01
11238	There has not been enough research and analysis to identify the impact of a 100 or 500 year flood on containment systems and the site in general.	PD22
15588	Conduct a impact assessment for potential historic flooding for the PolyMet project, and include the results of the assessment in the EIS.	NEPA05
<b>Sender Name (Submission ID)</b> Dave Gaddie (6605)		
1090	...move forward with jobs and materials that will help drive the economic environment for all of us who operate a business in NE Minnesota.	SO10
1198	I would like you to approve the permits necessary for PolyMet to proceed to construction. This project has been thoroughly vetted as it should be, but it should not be held to higher standards than any other mining project currently operating in NE Minnesota.	PER34
<b>Sender Name (Submission ID)</b> Dave Gibbens (38453)		
13616	Unlike tourism, mining actually creates wealth. To the extent that deleterious effects are minimized, it's a good thing for northeastern Minnesota and the state as a whole.	SO10
<b>Sender Name (Submission ID)</b> Dave H (9486)		
176	Are you ready to accept the increased risk of water pollution within two of the last, nearly pristine, water sheds that are likely needed in the future	WR111
177	Can you in good conscious, allow a 2% increase of CO2 levels when we know it increases climate temperatures	AIR01
178	Are you content permitting foreign investors to benefit by pilfering through our remaining prime state's forest land for a few million dollars and a few dozen jobs	PER02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dave H (9486)		
947	Indications are that of Polymet’s estimated 350 jobs only about 75 would involve local resources.	SO06
<b>Sender Name (Submission ID)</b> dave hunsche (7623)		
28	if there is any research into the presence of asbestos or similar fibers in the soils or rocks at the proposed mine site	AIR03
29	If any of these fibers are present what are the implications for worker and the surrounding populations health	AIR03
<b>Sender Name (Submission ID)</b> Dave Kotula (42545)		
15614	The MPCA & MDNR have looked over and examined this project for years & years, they are OK with it. Only the Tribal Agencies seem to be against it. The Tribal arguments are skewed. In my opinion they would never be for ANY mine or plant. This project will be good for the environment & great for northern Minnesota.	NEPA16
<b>Sender Name (Submission ID)</b> Dave Lacey (3246)		
197	The short term jobs do not compare to the degradation left over when they are gone.	SO01
<b>Sender Name (Submission ID)</b> Dave Laliberte (43063)		
11495	Northeastern Minnesota’s history, though, should caution us that in all likelihood, any mining proposal for the region is likely to feed another boom-bust economic cycle simply because the extraction of minerals from northern Minnesota is inextricably linked to the broader society’s demand for that mineral—a trend that cannot be accurately predicted decades into the future.	SO02
11497	...whether PolyMet’s operations continue for a portion of two decades or beyond it, a private company cannot be expected to endure—and financially ensure the environmental health of the area it impacts—for centuries.	FIN01
<b>Sender Name (Submission ID)</b> Dave LaZella (7152)		
491	Poly Met will provide many jobs for the local economy along with generating a substantial amount of tax revenue for the state.	SO02
677	I believe that the supplemental draft EIS has thoroughly looked at and addressed all environmental concerns.	NEPA16
<b>Sender Name (Submission ID)</b> Dave Leitzke (44909)		
8263	this mine will have a devastating effect on the environment of the immediate landscape....	SO02
8266	[This project will] poison the drinking water of local residents.	HU03, WR041
8269	This mine might provide short-term profit for its owners and share holder.. it will also wreak havoc with the surrounding countryside as well.	SO01
17110	The beauty of our state must be preserved.	LU04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dave Lislegard (44276)		
12768	PolyMet represents an opportunity to create hundreds of direct jobs supporting families on the East Range, as well as thousands of additional jobs statewide....What better way to stand up for environmental and economic justice than to create mining jobs in a state with some of the strictest environmental regulation in the world and labor and safety laws designed to protect workers.	NEPA05
14874	PolyMet's reverse osmosis water treatment design is well tested and used in many applications today.	PD28
14875	The Minnesota Department of Natural Resources is a respected agency responsible for determining that the PolyMet project will meet our state's strict standards. They along with the EPA and Army Corps of Engineers have been deeply involved with the evaluation of the state of the art technologies that will be used by PolyMet.	PER34
<b>Sender Name (Submission ID)</b> Dave Mills (45008)		
17290	Mining is not a economically sustainable industry. Sometimes a boost to an economy can help revitalize a community, but if there is significant potential harm it would seem a dangerous wager	SO01
17291	I would suggest minimizing the environmental risk of the area from a safety standpoint....	GEN01
17292	I would suggest minimizing the environmental risk of the area from ... a financial standpoint, if bankruptcy occurs....	FIN01
17293	The Polymet project would potentially improve the economy for less than a lifetime, yet the potential hazards will last for much longer than a lifetime, much longer than Minnesota has been a state, and much longer than any living thing in our State.	SO01
17295	The EIS of the project does not sufficiently cover our interests. There is too little evidence supporting the project, especially considering the real potential harms.	PD01
<b>Sender Name (Submission ID)</b> Dave Redelman (43605)		
12517	You could make EIS easier to follow by including all relevant information in the document and not refer back to SDEIS or DEAS. Also, when the EIS is released, the List of References should include links to those references with the references stored and easily accessible on the DNR website. Users of the website should be able to download these reference files....	NEPA07
12534	How many tons of rock will be used as a unit to segregate the rock into different categories? Within this unit, how much mixing will there be of rock from the different categories?	PD15
12537	The approximate and inferred faults in and adjacent to the mining operation are shown Figure 16. Cumulative Area of Vibration Impacts from the Tribal Cooperating Agencies Cumulative Effects Analysis on page 2074 of the SDEIS. These faults need to be specifically investigated to address possible groundwater issues. Also, I think the blasting effects on these faults needs to be specifically addressed.	N05
15676	I feel the comment period for the EIS should be 180 days. The comment period for the SDEIS should have been longer than 90 days due to the complexity of the document and the modeling used in the document.	NEPA07
15677	There have also been many mining companies going bankrupt with inadequate financial assurances resulting in taxpayers paying for the cleanup. ... Detailed financial assurance calculations with the associated risk analysis need to be completed for the EIS. This risk analysis is crucial in the EIS and any decision to proceed forward to the permitting process is dependent on this risk analysis.	FIN01, FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dave Redelman (43605)	
15678	My primary concerns involve addressing long term water quality issues. Sulfide mining has a generally poor record leaving long term water pollution after closing the mines. I am sure the proposals for these polluting mines also looked good on paper but still resulted in long term pollution problems.	WR023
15679	What is typical of [the permitting] process as the SDEIS is for the first sulfide mine in Minnesota? Also, forgive me but it seems absurd that more detailed engineering and analysis of risks would only be completed during permitting. Again, the engineering design and the risk analysis are both crucial in the EIS. Any decision to proceed forward to the permitting process is dependent on this risk analysis.	PER03
15680	Spatial variability and spatial statistics of sulfides and other possible pollutants within the rock in the pit area not adequately addressed.	PD15
15681	Given the spatial variability of sulfides in the pit rock, is it even possible to separate the rock into categories for permanent storage? I do not see the spatial statistics on the variability of sulfides in the pit rock in the SDEIS.	PD15
15682	Waste Rock Categorization Properties Table 3.2-8 lists the percentages of Total Waste Rock Mass listed for each category. Where are the statistics that describe the variability and accuracy of these estimates?...How does the sulfide in the pit rock vary spatial based on your current drill samples?... How can you be confident that the waste rock can even be separated into the categories throughout the mining process without these spatial statistics?...How will you assure that rock from the different waste rock categories will be kept separate?	PD15
15683	I do not see where any specific astronomical or ecological light pollution issues are addressed as described in the thematic response: "This topic is discussed in Sections 5.2.11 and 5.3.11 of the SDEIS."	PD01
15684	the cumulative effects from increased development and population need to be addressed. The State needs to develop best practices to address these topics and then include the best practices in development projects. Local zoning ordinances will only begin to adequately address these issues with leadership from the State.	CU15
15685	The night sky is one of the draws to the BWCA. All the proposed mining operations as well as other industrial and residential development near the BWCA would increase light pollution with a negative impact on viewing the night sky.	WILD02
15686	The effects of ecological light pollution are much more difficult to understand and to remedy. According to Bogard and other researchers, there is increasing evidence of negative effects on bats and migrating birds as well as nocturnal vertebrates and invertebrates.	WI01, WI04
15687	There are cumulative, long term effects from ecological and astronomical light pollution from increasing development and population. The DNR needs to develop best practices for both ecological and astronomical light pollution. These best practices need to be part of the PolyMet EIS.	PD01
<b>Sender Name (Submission ID)</b>	Dave Salo (18085)	
3211	Now, in conclusion, we know these metals are not readily available on the surface, but we need to extract them from the ground, and we need to do this to maintain the current manufacturing of these drugs and these products.	NEPA05
<b>Sender Name (Submission ID)</b>	Dave Sandstrom (9560)	
971	Polymet is utilizing environmentally friendly technologies designed to mine resources without abusing the environment - technologies that simply were not previously available.	PD28

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dave Sandstrom (9560)		
972	Polymet is utilizing environmentally friendly technologies designed to mine resources without abusing the environment - technologies that simply were not previously available.	ALT24
<b>Sender Name (Submission ID)</b> Dave Semerad (18158)		
13256	We believe this project will infuse economic vitality into the communities... Not only will meaningful projects be created across a wide spectrum of careers, but confidence and faith in Minnesota industry will be uplifted finding its way into communities, schools, and families. For every \$1 million of investment, 28,500 jobs are projected. We urge that this project proceed without further delay.	SO10
<b>Sender Name (Submission ID)</b> Dave Worshek (42566)		
17065	As a city councilor I feel it will help bring much needed jobs into the range. I feel it will also bring in other business's to our area which could also add jobs. Besides new jobs to our area I believe this will also be a real shot in the arm to our existing businesses. I also hope that this will bring new families to area with young children which will be a boost to our schools.	SO10
17066	I do feel the land exchange with the Forest Service is a positive proposal. The Forest Service is basically trading out of an area that has been right in the middle of taconite mining. They will be receiving land such as the Hay Lake area that has many acres of wetlands, is wooded and has little access. I believe that it is stated that there would be a net gain of approximately 70 acres of wetlands.	LAN11
17067	As far as water resources I do feel that with the restrictions places on Polymet that the water quality in existing stream/drainages would end up cleaner than what is now coming out of the old LTV tailings basins. I believe the main concerns would be sulfate and mercury and with the treatment planned it shows that concentrations would actually lower. The great lakes initiative discharge standard for mercury is 1.3 ng/L which is hard to make without doing anything to our water.	WR190
17068	Under the socioeconomics section it states that there will be no effect under the no action alternative. I do not believe that is correct. I believe that if we do not get some type of new industry up in this area we will lost businesses. Our local small businesses have been barely getting by and if we do not see something positive in the near future there will be some that will have to close their doors.	SO04, SO10
17069	Under wilderness it also states that no action has no effects. I also disagree with this statement because Polymet will bring new families to the area that may be looking for an out experience. This could mean more visitors to the BWCA, and more tourists to our area using our recreations facilities.	LU06
17070	I would rather have the mining happen here under our rules and regulations rather than in some far off area where we do not get any of the benefits but do get some of the adverse effects.	NEPA05
<b>Sender Name (Submission ID)</b> Dave Zins (45274)		
9167	The only way the public could ever utilize the mine site for recreation would be by trespassing. This is the reason I believe the land exchange with the U.S. Forest makes sense. This land exchange would open up lands that have been privately held, for the general public to use and enjoy for generations.	LU01
9169	I believe that the technology exists for this project to move forward now and start a new generation of mining with sustainable jobs for years to come.	SO10
<b>Sender Name (Submission ID)</b> davec (19912)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> davec (19912)		
1503	The government agencies are doing a wonderful job insuring the mining companies currently running are following the rules and leaving the environment as good as or better than the original terrain.	NEPA16
<b>Sender Name (Submission ID)</b> David (7736)		
842	After observing Polymet Minings efforts over the past several years and carefully reviewing the recent SDEIS, I feel the company has met the environmental requirements and should be issued a permit to proceed.	PER34
8362	This type of mining has never been done without polluting the surrounding area.	PER35
8363	The owners of the companies proposing the mining project are foreign owned, and almost impossible to go after once problems arise.	FIN04
8364	The taxpayers will be on the hook for the reverse osmosis mitigation. Estimates show that we will have to provide mitigation for at least 500 years. The average corporation like Polymet has a much shorter lifespan. They will be sold or go out of business, and we will be left holding the bag. There is no way the companies can make enough money to build the infrastructure to change public opinion, start up the mine, pay salaries, buy equipment, ship and process the ore, close the mine, and treat the ground water forever.	FIN01, FIN10, FIN11
8366	These proposals always wildly inflate the number of jobs that will be created.	SO04
16734	You can see (the inability to trust regulating entities) when you look at the DNR website which does not mention the flaws in the water model, which I believe underestimated the river flow rate on purpose.	WR003
19883	For everything that will happen, pollution, environmental degradation, it will be MN taxpayers footing this bill. This mine will cost Minnesotans more [ILLEGIBLE] it pumps into our economy.	FIN01
19885	No Mine has ever successfully run without major environmental effects. For everything that will happen, pollution, environmental degradation, it will be MN taxpayers footing this bill. This mine will cost Minnesotans more [ILLEGIBLE] it pumps into our economy.	PD26
19924	I know firsthand how valuable this resource is to the resort owners to tourists. This industry is a proven, reliable economic engine for northern Minnesota. To risk losing and [ILLEGIBLE] damaging this precious resource in favor of Polymet CEO's and 300 employees is absolutely not worth it.	SO01, SO02
20032	No mine has ever successfully run without major environmental effects	PD26, SO01
<b>Sender Name (Submission ID)</b> David & Alison Edgerton (46933)		
10861	I urge the State of Minnesota to deny the permits and leases for the nonferrous mining proposed by PolyMet. It has too many risks to our environment-- the flora and fauna of the area including the people who live or recreate in the region.	VEG10, WI13
10862	There are too many unknowns about the process, the heavy metals that may be released, and the cleanup and reclamation required for years and years after the actual mining.	PD01
10863	Please protect our northern forests and lakes, our world-reknowned recreational area, and the people who live there.	LU06

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    David & Ardis Eide (42718)

14336 Minnesota’s top natural resource is clean water. With the Boundary Waters lakes and Lake Superior we have a resource that can’t be matched in the country. However, that resource is fragile and the biggest enemy is pollution. There are no examples of open pit copper mining in the world that haven’t caused destruction or displacement of the ground water. In our case, that destruction would also include surface water, our greatest resource. WR023

14337 We know the demand for copper and other metals won’t dry up and the value of the ore will certainly appreciate. It’s also very likely that earth-friendly means of extracting the metals will be developed in the future. What would it hurt to save a known valuable resource until it’s safe to extract it? Imagine the value if Minnesota had saved some of our high-grade iron ore. PD32

14338 We need to be sensible stewards of our resources. We can’t accept short-term gains in exchange for long-term harm to our most valuable asset. SO01

**Sender Name (Submission ID)**    David A and Dianne K Kuiti  
(42876)

9004 Our country needs the minerals located in northern Minnesota. It is great that PolyMet has stepped forward to invest capital and take the risk involved in this project. As a bonus we will get jobs in Minnesota, we will export the product and receive cash, primarily from outside Minnesota. NEPA01

9004 Our country needs the minerals located in northern Minnesota. It is great that PolyMet has stepped forward to invest capital and take the risk involved in this project. As a bonus we will get jobs in Minnesota, we will export the product and receive cash, primarily from outside Minnesota. This is a win, win situation for all Minnesota residents. NEPA01, SO10

18049 The State of Minnesota has an excellent reputation and laws to protect the environment and should not be compared with other countries/areas and policies in effect years ago. PER44

18049 The State of Minnesota has an excellent reputation and laws to protect the environment and should not be compared with other countries/areas and policies in effect years ago. PER44

18051 The State of Minnesota is investing ~ billion dollars in a stadium for the Minnesota Vikings to keep jobs in Minnesota. This stadium may last 500 years and will require maintenance during the useful life and then will be torn down . The State of Minnesota did not require a reserve for the demolition. PolyMetonly wants approval from the State to proceed with the project. FIN16

18051 The State of Minnesota is investing ~ billion dollars in a stadium for the Minnesota Vikings to keep jobs in Minnesota. This stadium may last 500 years and will require maintenance during the useful life and then will be torn down . The State of Minnesota did not require a reserve for the demolition. PolyMetonly wants approval from the State to proceed with the project. FIN16

**Sender Name (Submission ID)**    David Alexander (47598)

7258 A reputable third-party insurer, such as Lloyd’s of London, must be found. FIN08

7260 I'm not confident the proposed PolyMet mine would avoid polluting Minnesota’s water. WR115

17184 We have plenty of copper to recycle already. NEPA06

**Sender Name (Submission ID)**    David Aquilina (45421)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Aquilina (45421)		
11348	What is the environmental impact of a threefold increase in the volume of ore dug up – at the PolyMet mine and at other mines that would need to be opened to supply their processing facility?	SO04
<b>Sender Name (Submission ID)</b> David Arbeit (42935)		
9846	The right decision hinges on the trade-off between a reasonable expectation of economic benefit over a short twenty-year period in exchange for an unreasonable expectation that mitigation will prevent incalculable and irreversible environmental damages, economic costs and human health issues that will be felt by generations.	SO01
9855	[The SDEIS is inadequate because of] inadequate assessments of long-term risks, a bias towards “best-case” scenarios that convey a false sense of prospects for mitigating risks ... and the absence of compelling evidence that technologies needed for reducing long-term risks to acceptable levels will be capable of achieving that outcome.	HU01
9861	PolyMet has depicted scenarios that might possibly be effective, but sulfide mining has never been undertaken in Minnesota and there is more than ample evidence that sulfide mining elsewhere has caused extensive damage to the environment, economy and public health.	HU03
9863	The benefits promised by the project, principally jobs for residents of northeast Minnesota are important. But are new mining jobs to be added by crippling or destroying a viable recreational industry and the development of businesses and sectors that do not endanger the unique resources in Northeast Minnesota?	LU06
9865	For a fraction of the expenditures that will be needed to attempt to make this project safe, the State should consider investing in infrastructure that supports a high-tech but green economy in the Northeast, such as high-speed broadband, entrepreneurial start-ups, and education and training.	SO02
9870	I urge you to reject the PolyMet NorthMet SDEIS as inadequate and, further, to reject all attempts to open the State to open pit sulfide mining unless and until the capacity to totally eliminate the risks of environmental impacts of such activities have been demonstrated using proven methods and technologies during the full life-cycle of mining, maintenance and mitigation elsewhere.	NEPA15
14498	[The SDEIS is inadequate because of] a complete failure to analyze risks to on-site workers, the absence of a Health Risk Assessment of the effects of toxic pollutants on people and habitat downstream	HU04
14499	[PolyMet's plan for] closure and post-closure maintenance “if or when proven effective” for a period that PolyMet acknowledges “would last for an unknown duration.” This last sentence is telling: what if no effective method exists for putting the genie back into the bottle when a toxic contaminant is leached or released – especially once operations have ended.	PD06
14500	If the SDEIS were an academic exercise, it would probably deserve an A-plus. Yet, the assumptions made and scenarios used to demonstrate a low-risk result defy what we already know – even under “blue sky” conditions, risk cannot be reduced to zero.	PER23
14501	what about the cost of a highly improbable scenario should it occur? Can it really be measured and who, if not the public, will end up paying for it? Must we forget the results of catastrophic failures such as Fukushima, Exxon/Valdez or Deepwater Horizon?	FIN01, FIN05
<b>Sender Name (Submission ID)</b> David B. Edgette (46258)		
8860	Please DO NOT issue a mining permit to PolyMet. The St. Louis River and Lake Superior already have too much pollution flowing into them as a result of past and present industries. Potential additional pollution from PolyMet should not be allowed. In fact, more clean up of all fresh waters should begin ASAP.	CU11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David B. Edgette (46258)		
8862	The copper concentration in the ore body that PolyMet plans to mine is of such low concentrate that a large amount of material will need to be removed for a very small return of copper.	PD30
8865	The destruction of forest and pollution produced for 100's of years is not worth 15-25 years of mining jobs.	SO01
8867	Sure it might be profitable for corporations like Minnesota Power to sell more electricity produced from their polluting coal burning power plants. This also would not be good for the environment.	PD39
8870	A land exchange does not replace the location and original forest as was intended when it was set aside for the future. Recreational land is one of Minnesota's largest long term assets.	LU01
8871	Please DO NOT issue a permit to allow PolyMet to profit for a short term by shipping their copper to China, leaving Minnesota with another polluting hole in the ground.	SO01
<b>Sender Name (Submission ID)</b> David Bergerud (42720)		
9896	Water contamination treatment would need to remain in operation for up to 500 years. We need to ask what does this mean? What would happen if treatment were interrupted or stopped? What would happen if the treatment facility infrastructure failed or was damaged?	PD04, WR144, WR202
9897	Five hundred years would make PolyMet the oldest business in America. I find it difficult to believe they would be there for us 500 years from now for a 20 year project today.	FIN01
9898	How much bonding will be required to service such a long term problem? How do you factor inflation for 500 years?	FIN05, FIN08
9899	If water treatment were abandoned, what would be the environmental repercussions? What would be done if this company failed or was sold or cannot uphold its obligations? If the environmental obligations were dumped on the state or federal government, how much money will the taxpayer have to shell out?	FIN01, WR037
9900	If mining is our economic lifeline, why are there so many derelict buildings and homes scattered around the range towns? What will these towns look like after the operation halts? Will we be faced with a surplus of structures, facilities, and homes when the bust occurs 20 years from now?	SO02
9901	How does PolyMet address the economic equation of an enviable end to the operation? Will they pay for unemployment, re-education training or relocation expenses? How do you weigh the trade-off of a 20 year environmentally controversial private venture against the protection of our unique and fragile environment?	FIN01
<b>Sender Name (Submission ID)</b> David Brown (42119)		
2169	Please reject the PolyMet NorthMet SDEIS as inadequate and reject the PolyMet open-pit sulfide mine and wastes proposal due to its unacceptable risks to human health.	HU03
2170	The PolyMet SDEIS analysis of mercury risks is inadequate and misleading. The SDEIS' claims that mercury and sulfates -- which increase mercury in the food chain -- will be "captured" are unreliable. There are huge gaps in the SDEIS where there should be information on mercury concentrations and seepage from waste rock, peat overburden, tailings and liner leaks.	MERC20

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	David Brown (42119)	
12171	The SDEIS inadequately analyzes human health impacts of PolyMet’s pollution. Not just mercury in fish, but impacts of manganese, lead and aluminum in water on the brain; impacts of air emissions including diesel, asbestos-like fibers, nickel and other particulates on cancer; and impacts of arsenic on cancer. The SDEIS does not explain potential harm to human beings, particularly for bottle-fed infants, children and the elderly, who are more vulnerable to the impacts of toxic pollution.	HU01
12172	The PolyMet sulfide mine project and SDEIS plan should be rejected due to unresolved serious issues regarding mercury and other pollutants that affect human health.	HU01
3262	reject the PolyMet open-pit sulfide mine and wastes proposal due to its unacceptable risks to human health.	HU03
3266	The PolyMet SDEIS analysis of mercury risks is inadequate and misleading. The SDEIS’ claims that mercury and sulfates -- which increase mercury in the food chain -- will be “captured” are unreliable. There are huge gaps in the SDEIS where there should be information on mercury concentrations and seepage from waste rock, peat overburden, tailings and liner leaks.	MERC20
3267	The SDEIS does not explain potential harm to human beings, particularly for bottle-fed infants, children and the elderly, who are more vulnerable to the impacts of toxic pollution.	HU01
3268	The SDEIS completely fails to analyze any risks to workers on-site at the PolyMet mine or plant.	HU04
3269	Redo the SDEIS to disclose mercury concentrations and how much mercury is released directly or indirectly into surface waters from all PolyMet sources.	MERC16
3271	Redo the SDEIS to require a separate and clear Health Risk Assessment prepared in conjunction with the Minnesota Health Department to analyze impacts of all PolyMet sulfide mine and plant pollution releases and accumulations on health	HU01
3272	Complete the mercury TMDL study of the St. Louis River before finalizing the PolyMet SDEIS or issuing any permits for the PolyMet sulfide mine project.	MERC22
12314	I’m just against the mining just simply because of the 500-year exposure and what it would mean to the wetlands and the water there.	WR195
12316	I think ultimately that’s all going to come to be billed to the taxpayers.	FIN10
12318	I would rather use that money to create other programs for the people that would essentially benefit from this.	SO02
12319	We should use less copper and all sorts of industrial products. And I don’t think the fact that people aren’t yet ready to give up copper is a reason to create more mines for copper.	NEPA06
16620	The SDEIS inadequately analyzes human health impacts of PolyMet’s pollution. Not just mercury in fish, but impacts of manganese, lead and aluminum in water on the brain; impacts of air emissions including diesel, asbestos-like fibers, nickel and other particulates on cancer; and impacts of arsenic on cancer.	AIR10
16621	The SDEIS fails to assess impacts on nearby residential wells from tailings basin groundwater seepage.	HU01
16622	The SDEIS inappropriately reduces the 70-year “lifetime” to 30 or 40 years to mislead the public about cancer risks at the PolyMet property boundary.	HU06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Brown (42119)		
16624	The SDEIS arbitrarily denies effects of water pollution on the St. Louis River.	WR111
16625	The SDEIS fails to recognize environmental justice effects of pollutants, such as methylmercury and arsenic, that may be found in fish, game and wild rice as well as water, and may cause particular harm to tribal members or low-income families who rely on fish, game and wild rice for subsistence.	SO04
16627	Redo the SDEIS to assess mercury impacts without unreasonable assumptions, like the claim that almost all tailings seepage of sulfates would be captured.	MERC20
16630	Redo the SDEIS to evaluate methylmercury accumulation in the food chain due to hydrologic changes to peat and wetlands as well as due to air and water pollution.	AIR05
16632	[Include] Description of the known human health impacts of all pollutants in PolyMet’s air emissions and water discharges in language understandable to the public.	AIR07
16634	[Include] Assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis.	HU02
16635	[Include] Assessment of all risks using a 70-year “lifetime” for exposures.	HU06
16637	[Include] Assessment of cumulative risks of multiple chemicals and exposure routes (drinking water, fish, wild rice) on infants, children and the elderly.	HU02
<b>Sender Name (Submission ID)</b> david burrow (47221)		
8848	We fish, swim, canoe, Kayak, sail, bike ride, camp and cross country ski. Clean water is critical to everyone in Northern Minnesota that enjoys these activities.	LU06
9067	This area has a great many lakes and includes two watersheds... These watersheds represent a substantial amount of the fresh water reservoir on the planet... It is for this reason, I believe, that copper mining should not be introduced into Minnesota.	WR111, WR115
9072	Oxidization of sulfide bearing waste rock resulting from extraction and processing will create sulfate. Sulfate contact with surface or groundwater, accidental or otherwise, results in acidification of the water. Lakes and wetlands in NE Minnesota are very sensitive to changes in ph. Small changes effectively "poison" the the water and will kill fish and wildlife.	WI04, WR001
9078	The Northeastern area of Minnesota, currently being considered for the NorthMet project, is a unique land and water resource. So unique that a significant portion of the area has been designated as a National Wilderness Area (BWCAW). As a result, there are limits placed on the area with respect to how it can be used with the intent of preserving it for the long term. Copper/heavy metal mining will put the BWCAWin jeopardy.	WILD02
9085	Studies have shown that there is a great deal of copper in the earth's crust distributed around the planet; enough to last thousands of years at current rates of use. In addition, we continue to increase our recycling rates for essential minerals.	ALT09, ALT16

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> david burrow (47221)		
9089	The SDEIS acknowledges that the environmental impact of untreated waste rock and water as a result of the NorthMet project could be serious and perhaps devastating. As such, multiple treatment and containment techniques detailed in the SDEIS will be employed to manage the threat of environmental damage. However, despite best efforts at protection, every existing copper mine has caused significant environment damage. Worse still is that the possibility for damage exists not just during the mines operation but for many, perhaps hundreds of years into the future.	WR023, WR115, WR195
9177	In an anticipation of the possible future cleanup costs, there are suggestions, not detailed in the SDEIS, of a surety bond or some financial instrument that sets aside monies to pay for ongoing management/treatment of the mine's waste products. Given that few corporations remain in business for hundreds of years, including those involved in mining or backing bonds, how then can Minnesotans be assured that we collectively will not be responsible for future cleanup/ treatment costs associated with copper mining?	FIN01, FIN08
<b>Sender Name (Submission ID)</b> David Carlson (11539)		
2489	The precious resources of water, particularly, along with forest and wildlife, are irreplaceable and are worth far more than any short-term profits to be gained by sulfide mining. The safeguards promised do not and cannot outweigh the severe risks and environmental degradation that would likely ensue from this proposed operation.	SO01
2489	The precious resources of water, particularly, along with forest and wildlife, are irreplaceable and are worth far more than any short-term profits to be gained by sulfide mining. The safeguards promised do not and cannot outweigh the severe risks and environmental degradation that would likely ensue from this proposed operation.	SO01
12840	There are hundreds of reasons to say no to this mine. Reasons for it? Maybe a couple hundred non union jobs for 20 years. The risk to the waterways of this state are just not worth it. The costs the taxpayers will end up picking up to clean up their mess when they leave will be endless.	SO01
<b>Sender Name (Submission ID)</b> David Cartwright (42793)		
6878	I believe it is short sighted with the lure of economic benefit of the expense of long term environmental impact. Most concerned about the impact on water quality.	SO01
<b>Sender Name (Submission ID)</b> David Christenson (47994)		
12908	PolyMet-and other mining operations that will surely follow whatever precedent you set-are more than likely, long term, to turn the region into another abandoned 'Copper Country' - chronically polluted, chronically depressed, decaying and depopulated.	SO02
16196	No copper-sulfide mine has ever operated without polluting its environment. Not one. Ever. What is in the history of the backers of PolyMet, or their plans, to make us think they're the exception? Nothing.	PD26
16198	Sure, the PolyMet mine will bring money and profit - mostly for the mine execs and investors of course - but PolyMet -and other mining operations that will surely follow whatever precedent you set - are more than likely, long term, to turn the region into another abandoned 'Copper Country' - chronically polluted, chronically depressed, decaying and depopulated.	SO02
<b>Sender Name (Submission ID)</b> David D Cameron (57224)		
17172	There is no justification to mine low grade sulfide for the benefit of a few and ruin the environment for generations to come.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	David D. Thomas (10318)	
501	If there is a significant chance of environmental destruction and human health hazards, this project can not be worth the projected modest short-term economic gains, for a small number of people, many of whom are not Minnesotans and will not be affected directly by the destruction and hazards.	SO01
<b>Sender Name (Submission ID)</b>	David Davison (44816)	
7747	If the company falls short on its obligations, Minnesota should be able to shut it down.	FIN01
7748	The company should be required to create an escrow account for damage repair that is acceptable to most Minnesotans.	FIN01
7749	The corporation has little incentive to fix any damage it causes.	FIN01
<b>Sender Name (Submission ID)</b>	David Donch (39907)	
14290	Hundreds of thousands of Minnesotans like myself vacation near this area every year and support the local economies with our tourist dollars. I myself have family that lives in the area and do not wish to have their ecosystem harmed for the sake of a few thousand jobs that one day will be replaced with massive clean-ups that cannot leave the ecosystem nearly as pristine as it is now.	SO02
<b>Sender Name (Submission ID)</b>	david evans (52263)	
10697	There is...reason to believe that some of the toxins that will enter our waters [from the Project] will be neurotoxins. While these will potentially effect children as yet unborn one of the decisions you are making is if you should risk the future intelligence and health of our grandchildren for a few jobs and the short term profits for a few shareholders.	SO01
12076	The permit request in front of you is disguised with assurances that a clean up program will be adequate, funded and carried out	FIN01
<b>Sender Name (Submission ID)</b>	David Flessner (31822)	
13850	No matter what PolyMet says about their environmental practices, they will inflict severe damage on the area and bring a significant level of toxicity to a pristine area. This outweighs the benefit of any jobs that might be created.	SO01
<b>Sender Name (Submission ID)</b>	David Frame (11358)	
2004	there will be acid based runoff and leaching for up to 500 years. That tells me that the process was not done properly.	WR001, WR035
2005	The DNR should require the mining company to mix their 'waste' with a substance that is similar in consistency to the 'waste' and in a quantity that will neutralize the 'waste' so that any runoff or leachate will be have a pH that will not degrade the environment.	WR027
<b>Sender Name (Submission ID)</b>	David Franseen (6185)	
1165	I support moving this project forward to the Final EIS and ROD	NEPA16

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Franseen (6185)		
1167	It appears reasonably certain that this project can move forward without undue or significant impact on the environment. Or it may even have positive outcomes for the site and surrounding ecosystems.	PD28
<b>Sender Name (Submission ID)</b> David Freeman (18312)		
4236	The SDEIS is wholly inadequate to provide definitive information about the total cost of [water treatment to remove toxic pollutants and the maintenance and monitoring of water treatment], the mechanisms for providing for or requiring for payment and ensuring payment of such costs.	FIN01, FIN05, FIN11
4237	And the socioeconomic costs to the people in Minnesota and the nation when it seem likely that the mechanisms for ensuring payment are insufficient or failed entirely.	SO02
4238	The SDEIS acknowledges that toxic water pollution from mine sites, tailings piles, and waste piles will require treatment for a very long time. The mechanical water treatment is part of the model proposed to action for 200 years at mine site, 500 years at the plant site.	WR037
4243	Indeed a major flaw in the project is the cost of engineering, designing, planning, building, and maintaining the water treatment is unknowable. Any project for which the cost of water treatment is unknowable, but according to the project proposer will be in the billions of dollars, should not be considered for approval by the state.	FIN05
13032	It is irrational to believe that any water treatment facility or corporation will last for hundreds of years, but any financial institution or instrument can provide credible guarantee for hundreds of years and that there will be no catastrophic failure by humans or equipment over hundreds of years.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> David French (10803)		
619	I have been most impressed with the professional approach of the Company to systematically dealing with the very valid concerns of the environmental lobby, particularly with the subject of water pollution.	PD28
620	On the positive side, the mine clearly contains large quantities of very valuable minerals which will benefit the whole community and the country, and the creation of hundreds of well paid jobs in an economically deprived area could only be a major boon.	SO10
1490	As a professional engineer, I applaud the Company's reverse osmosis solution,	PD28
<b>Sender Name (Submission ID)</b> David G Nelson (54896)		
18835	Poisoned water that can't be reversed and then [PolyMet, Twin Metals, and others] leave not caring about the destruction.	GEN01
18836	Short-term jobs are far outweighed by lost jobs, lost tourism, environment destruction, human health, and even death.	SO01
<b>Sender Name (Submission ID)</b> David Garelick (39464)		
13397	Credible science corroborates the extreme environmental risks of these operations. Those that purport to tell a different story are bought and paid for by mining dollars and lobbying.	SO02
<b>Sender Name (Submission ID)</b> David Givers (45537)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> David Givers (45537)		
11530	As you know, the scientific method requires a testable hypothesis. This condition is missing from the SDEIS.	NEPA15
11541	Climate scientists are clear that climate change is on us and will continue to escalate over what was the Cenozoic Era. This is borne out by the following statement and shows that the SDEIS is seriously flawed:	AIR01
11543	Geoscientists can estimate the probability on an earthquake on the Laurentian shield	GT05
15796	If this study [Continuation of Existing Conditions Scenario model] subsumes these modeled climate changes within the SWM (Gold Sim) models, then the written report needs to spell them out in the narrative so that the citizens of Minnesota, and the rest of the United States, can read the results.	PD29
<b>Sender Name (Submission ID)</b> David Greene (23427)		
13976	Sulfide mining can destroy wetlands, rivers, lakes and streams across the Arrowhead Region of Minnesota, including Lake Superior and the Boundary Waters Canoe Area Wilderness. This area is home to a wide variety of animal and plant life and should continue to supply clean water to the lakes. Acid Mine Drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred.	VEG06
<b>Sender Name (Submission ID)</b> David H Hopper (54759)		
19213	The major loss of wetlands, primarily bogs, that cannot be replaced. The SEIS already makes it clear that wetland “restorations” will not take place in the Lake Superior watershed and are highly unlikely to replace bogs. The wetlands at the site have been rated as “having high wetland quality.” How can they possibly be “replaced?”	WET03, WET05
19215	Predictions of chemical pollution, not just from sulfate and its acceleration of toxic mercury conversions, but also heavy metals like nickel and aluminum that kills fish.	AQ05
19216	The long term need to clean up water from pollutants, possibly for 200 years. How can that be assured, especially with more mines ready to ask for permits in that are?	WR035
19218	The questionable suggestion that a company, that plans to mine the proposed site for 20 years, could possibly provide “financial assurance” to cover the expensive costs of water treatment for 200 years or more into the future. And can such treatment truly control all the sorts of pollutants that will come from the mine site? The SEIS predicts the company will excavate 307 million tons of bedrock in 20 years, at 70,000 tons per day.	FIN01
19222	We are concerned that a lot of the proposed PolyMet site area has been designated by MN DNR as “Sites of High Biodiversity Significance” and support eleven state-listed species of plants. Destruction of such an area cannot be rectified, not justified.	VEG01, VEG02
<b>Sender Name (Submission ID)</b> David Hopper (43037)		
17162	We are concerned about: 1)The major loss of wetlands, primarily bogs, that cannot be replaced. The SEIS already makes it clear that wetland "restorations" will not take place in the Lake Superior watershed and are highly unlikely to replace bogs. The wetlands at the site have been rated as "having high wetland quality." How can they possibly be replaced?	WET03, WET04, WET05
17163	We are concerned about: 2) Predictions of chemical pollution, not just from sulfate and its acceleration of toxic mercury conversions, but also heavy metals like nickel and aluminum, that kills fish.	MERC08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Hopper (43037)		
17164	We are concerned about: 3) The long term need to clean up water from pollutants, possibly for 200 years. How can that be assured	WR070
17165	We are concerned about: 4) The questionable suggestion that a company, that plans to mine the proposed site for 20 years, could possibly provide "financial assurance" to cover the expensive costs of water treatment for 200 years or more into the future.	FIN01
17166	...can such [long-term watertreatment] truly control all the sorts of pollutants that will come from the mine site? The SEIS predicts the company will excavate 307 million tons of bedrock in 20 years, at 70,000 tons per day.	WR128
17167	We are concerned that a lot of the proposed PolyMet site area has been designated by MN DNR as "Sites of High Biodiversity Significance" and support eleven state-listed species of plants. Destruction of such an area cannot be rectified, nor justified.	VEG01, VEG02
17168	...create metal recycling facilities and hire people to work on recovering the metals we need.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> David J Bombich (42849)		
9375	Iron Ore, Copper, Nickel and other precious metals are essential elements that are required for the manufacturing of critical products including cell phones, wind turbines, electric car batteries, and many other items that people around the world use every day.	NEPA01, NEPA05
9375	Iron Ore, Copper, Nickel and other precious metals are essential elements that are required for the manufacturing of critical products including cell phones, wind turbines, electric car batteries, and many other items that people around the world use every day.	NEPA01
9378	Minnesota is incredibly fortunate to have some of the largest deposits of these precious metals in the world located in an area that has already set up for mining activity. Mining these deposits in a responsible way represents the largest economic opportunity for the NE MN region and the state of MN since iron ore was discovered here, bringing construction and operation jobs that pay enough to support families, provide high quality health care and the retirement security of a pension.	NEPA01, SO10
9378	Minnesota is incredibly fortunate to have some of the largest deposits of these precious metals in the world located in an area that has already set up for mining activity. Mining these deposits in a responsible way represents the largest economic opportunity for the NE MN region and the state of MN since iron ore was discovered here, bringing construction and operation jobs that pay enough to support families, provide high quality health care and the retirement security of a pension.	NEPA01
9379	Mining these metals in Minnesota is the green option because we have a long history of mining responsibly, and we have the most protective environmental regulations in the world for permitting new mines and the alternative to mining in Minnesota is to mine in places that have none of our safeguards.	PER34
9379	If these metals are not mined in Minnesota, they will continue to be mined in places around the world that have little to no environmental regulations whatsoever, causing massive pollution to the earth...Mining these metals in Minnesota is the green option because we have a long history of mining responsibly, and we have the most protective environmental regulations in the world for permitting new mines and the alternative to mining in Minnesota is to mine in places that have none of our safeguards.	NEPA05, PER34
9380	Minnesota taxpayers are fully protected by the toughest financial assurance laws in the nation, laws that leave control over this process completely in the hands of the experts at the DNR, and in which the companies are faced with one decision-either accept the conditions of financial assurance or do not accept and receive no permit.	FIN16, FIN17

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> David J Bombich (42849)		
9380	Minnesota taxpayers are fully protected by the toughest financial assurance laws in the nation, laws that leave control over this process completely in the hands of the experts at the DNR, and in which the companies are faced with one decision-either accept the conditions of financial assurance or do not accept and receive no permit.	FIN16, FIN17
9381	The United Steelworkers Local 6115 supports iron ore, copper, nickel and other precious metal mining projects in Northeast Minnesota as long as the rigorous and nation-leading process in our state of permitting new mines is followed, and our union has faith that the experts and professionals in our state and federal agencies, most of whom are proud members of AFSCME or MAPE, will carry out this process and ultimately determine whether or not projects can meet our tough environmental and financial assurance standards.	NEPA16, PER34
9381	The United Steelworkers Local 6115 supports iron ore, copper, nickel and other precious metal mining projects in Northeast Minnesota as long as the rigorous and nation-leading process in our state of permitting new mines is followed, and our union has faith that the experts and professionals in our state and federal agencies, most of whom are proud members of AFSCME or MAPE, will carry out this process and ultimately determine whether or not projects can meet our tough environmental and financial assurance standards.	PER34
18293	If these metals are not mined in Minnesota, they will be mined in places around the world that offer no safety protections to workers, where children are routinely put in danger by being forced to work in these unsafe conditions, and where workers are exploited by being paid inhumane wages that do not allow them to feed their families....	NEPA05
18293	If these metals are not mined in Minnesota, they will be mined in places around the world that offer no safety protections to workers, where children are routinely put in danger by being forced to work in these unsafe conditions, and where workers are exploited by being paid inhumane wages that do not allow them to feed their families....	NEPA05
<b>Sender Name (Submission ID)</b> David J Hampton (54541)		
19175	Please take extreme care while assessing the environmental impact of the PolyMet mining project. Constantly keep in mind that you are dealing with an extractive project of limited duration that, in all probability, have centuries of environmental impacts.	SO01
<b>Sender Name (Submission ID)</b> David J McMillan (54487)		
18015	I believe the regulators charged with investigating and developing a record regarding PolyMet's plans for mining and processing the NorthMet Deposit ores east and north of Hoyt Lakes, MN have done an exceptionally thorough and comprehensive job.	NEPA16
<b>Sender Name (Submission ID)</b> David J. McMillan (40758)		
14306	I believe the regulators charged with investigating and developing a record regarding PolyMet's plans for mining and processing the NorthMet Deposit ores east and north of Hoyt Lakes, MN have done an exceptionally thorough and comprehensive job.	NEPA16
14307	I feel that it is critically important to highlight the resources and infrastructure we have here in NE Minnesota that will enable us to responsibly and effectively support expansion of mining in our region should PolyMet's Permit to Mine be issued by the DNR -- which I believe it should.	NEPA16
14308	I daresay that no place in the world is better able to assure that the strategic minerals needed for today's technologically and energy savvy world will be extracted with more care for the environment than right here in northeastern Minnesota.	NEPA05
<b>Sender Name (Submission ID)</b> David K Wickstrom (54705)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David K Wickstrom (54705)		
17765	It seems to me that the goal should be complete containment of mining waste and associated water and dissolved metals with no long-term waste management costs when the mining is done.	PD09, PD35
17766	The allure of reverse osmosis in water treatment together with an impervious membrane is that it offers at least some technology for a long-term solution to acid mine runoff, even if it is never-ending. It is not satisfactory because environmental threats are only delayed, and who will pay for long-term maintenance is not determined.	FIN01
17767	Minnesota is at a competitive disadvantage because of our wet climate, the problem with water seeping through tailings, and long-term sulfuric acid and dissolved metal mine runoff. What can go wrong with copper mining in moist places is well illustrated by the Berkley pit in Butte, Montana, or the Elizabeth mine in Vermont, both federal Superfund sites.	WR008, WR023, WR107, WR180
17768	PolyMet has clearly spent little effort at finding a better acid mine runoff solution.	ALT13
17769	In the context of centuries, a polymer will not work [for waste rock disposal] because it will break down. The East pit should remain separated by solid Duluth Complex rock. Rather than ending with a revegetated bog, the pit should be designed with a low mound on top to shed water and be revegetated, and not allow percolation down into the pit. Otherwise it will have the same outcome as the Flambeau mine. The objective should be to eliminate water circulation into the pit, within the pit, and out of the pit.	ALT06, ALT13
17770	The level of mercury (and methylmercury) is already so high in Lake Superior that the Minnesota Department of Health has issued advisories about human fish consumption. ... The discussion should be about how to remove dissolved metals in Lake Superior harmful to human health, not about absorbing additional threats. Public policy regarding power plant and other emissions of mercury has significantly reduced the amount of new mercury pollution going into the lake, but it is still increasing (see Minnesota Sea Grant).	PER11
17771	In the SDEIS study area, "background" is already a compromised concept, particularly as regards the effects of sulfur dioxide (SO <sub>2</sub> ), a primary smokestack effluent. After decades, how can it not increase dissolved metals. How can it not effect wild rice in Minnesota?	WR203
17772	If a better copper mine waste disposal solution is not found, the trade-off between copper mining benefits and further damage to the waters of the State is not worth it.	SO01
<b>Sender Name (Submission ID)</b> David K. Nelson (47595)		
7180	[T]his state has a lot to offer everyone...Water recreation for one, camping, fishing, hunting, tour guides, lodges for people to get away from the big city life. No one can predict the out come for the generations to come	LU06
<b>Sender Name (Submission ID)</b> David Kane (18309)		
4166	Sulfide plus oxygen equals sulfuric acid just like one plus one equals two. So we're talking about -- I don't know -- thousands, millions of tons of sulfides baking in the sun, water. Everybody knows how much it rains in Minnesota.	HAZ03
4167	I grew up close to the Embarrass River in Lakeland and chain of lakes, close to Bass Lake, which is a spring-fed lake. I'm curious what kind of study has been done with the underwater type studies of this kind of mining and fracturing of rock formation like this.	WR011
12795	I don't think it's wise to mine toxic material on top of a (inaudible) that straddles the continental divide.	PD08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> David Kane (18309)		
12797	Polluting your environment for 20 years' worth the jobs and then taking care of that water for 500 years -- a number pulled out arbitrarily -- to me I don't know who is going to be paying for it. I think it's going to be dumped on the taxpayers.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> David Kozlak (14933)		
332	Like the tailings that polluted Lake Superior in the past, I hope that we have learned what is safe and what is not to our waters.	WR023
336	Growing up my father taught me how to respect the land ... I too would like to teach my young son those same lessons in that environment, please do not allow PolyMet to endanger that opportunity	GEN01
338	What can we do when the pollution spreads? ... And who will pay for the damages..to our fisheries, to our woodland animals and hunting, to our wild rice, timber and other current resource based sports, business and industries?	FIN01
340	Will fishing and hunting licences drop? Will permits into the boundary waters drop? Will tourism falter? Or will irreversible damage be done.	LU06
<b>Sender Name (Submission ID)</b> David Kremer (47027)		
10623	As a union member myself, I value good jobs, but not at the expense of this {BWCA}Minnesota/national/international treasure.	SO01
<b>Sender Name (Submission ID)</b> David Krings (7628)		
826	Since the area is already impacted by previous mining activity, this is our chance to recover more metallic ore and to fund a true rehabilitation of the land so our grandchildren will find it in a better condition.	PD28
<b>Sender Name (Submission ID)</b> David L. Ivonon (53223)		
15343	I would love nothing more than to see good paying jobs...However, NOT at this expense	SO02
<b>Sender Name (Submission ID)</b> David Langfeld (43343)		
11654	I believe that the Polymet project be given full approval by the State of Minnesota agencies involved for permitting. I believe enough scrutiny has been applied to the project by all of the agencies involved over the many years that it has been waiting, not to mention the vast amount of money spent by the company to address the environmental concerns of those special interest groups who, I believe, don't have valid argument against the project.	PER34
11655	[the Aurora and Hoyt Lakes communities] have waited far too long for the day that good paying jobs would return to the former LTV site that once sustained a good quality of life... I have observed the closures of schools and businesses, as well as the losses of the various civic organizations that made for an enjoyable upbringing in these communities.	SO10
<b>Sender Name (Submission ID)</b> David Lankinen (39241)		
12577	the few jobs that it would create is not worth the environmental costs that would occur and create scars on the landscape forever.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Lasecke (3429)		
8666	Does the tourism industry in the region benefit? Some businesses in the tourism industry are already experiencing a decline in business because of test-drilling sites located nearby...What will happen to the tourism industry once sulfide mining begins production?	SO02
9596	Do the taxpayers of Minnesota benefit? Does the state benefit? PolyMet and other companies seeking to mine in the region are not Minnesota companies, nor are they even U.S. companies!	SO06
9598	Do the locals in the region who are pro-mining really have the chance to benefit as much as they are being promised? PolyMet's operation is estimated to provide a few hundred jobs only, and only for 20-some years. How many locals can realistically expect employment? Do we really want to trade a few hundred temporary jobs for 500 years of cleanup?	SO01
9600	Do the property owners in the region benefit? I'm one of those property owners, and I pay a small fortune each year in property taxes that help support the region. I view my own property, and the region as a whole, as a JEWEL, as a LEGACY to pass on to the generations that follow me. I do not want to see this jewel poisoned by poorly managed sulfide mining!	LU06
13410	The Boundary Waters and other lakes and parks in the region draw thousands of visitors each year from around the country and around the world. Some businesses in the tourism industry are already experiencing a decline in business because of test-drilling sites located nearby, What will happen to the tourism industry once sulfide mining begins production?	SO02
13411	PolyMet's operation is estimated to provide a few hundred jobs only, and only for 20-some years. How many locals can realistically expect employment? Do we really want to trade a few hundred temporary jobs for 500 years of cleanup?	SO01
13412	Do the property owners in the region benefit? I do not want to see this jewel poisoned by poorly managed sulfide mining!	SO01
<b>Sender Name (Submission ID)</b> David Litsenberger (38778)		
4889	As a "threatened" species, it is of concern to the DNR to see that this species [lynx] is successful in reproducing and able to forage for food. However, the proposed Polymet project would add on to the fence-like barrier the Iron Range mines present to lynx and other mammals in this region.	WI01, WI03
4890	In times of food shortages they will migrate as much as 250 miles (Kurta's Mammals of the Great Lakes Region). The mining activities of the Iron Range, a rather vast disturbed area, therefore, acts to restrict the movements of lynx.	WI03
4891	Also, the fact that Polymet has never had a mine and doesn't have the financial resources for assurances in case of (and they will occur) environmental mishaps, well, this project should not be allowed to go forward.	FIN01
16789	Should the Polymet project win approval it is easy to see that more projects of this type will then be approved to where this barrier will extend from Grand Rapids to the Boundary Waters.	CU04
<b>Sender Name (Submission ID)</b> David M Windseth (47697)		
7956	This mine has a strong potential to pollute northern Minnesota waterways, including areas of the Boundary Waters and Lake Superior, and is not worth the risk to the wilds of northern Minnesota, which many people depend on for tourism to make a living.	WILD02
7957	Most of the money used to mine will not remain in MN, and if the tailings dam does leak many times the company will take the money and declare bankruptcy to avoid having to pay for cleanup costs, putting the responsibility unfairly on the citizens of MN.	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David M Windseth (47697)		
7959	50 years of jobs is not worth the 500+ years of monitoring and risks it puts on one of the cleanest water systems in the world.	SO01
11117	These types of mines have a bad track record in wet environments like Minnesota, and should not be allowed to compromise the state we all live in and enjoy.	PD26
<b>Sender Name (Submission ID)</b> David Maki (39035)		
10182	As an engineer, I am fully aware that there is not a single case study documenting Sulfide mining that did not lead to long lasting watershed pollution involving increased acidity and heavy metal contamination.	WR023
10184	PolyMet is a new company with no mining experience or track record of responsible pollution management.	PD23
10185	However, the track record of PolyMet's parent corporation Glencore is riddled with environmental disasters, labor violations, and human rights abuses around the world.	PD23
10186	I strongly urge you to consider the history of Sulfide mining in general, and Glencore's record of environmental stewardship when considering this issue.	PER02
10187	I have deep reservations concerning the effects Sulfide mining will have on the natural and cultural resources of the Partridge and Embarrass Rivers. Both rivers contain significant wild rice resources. Wild Rice is a traditional cultural property of the Anishanabe people.	CR01, CR05, WR158
10189	Heavy Metal contamination, both real and perceived, will have a negative impact on this traditional resource [wild rice] for the next 200 to 500 years.	VEG04
10191	I strongly urge you to reject PolyMet's shortsighted plan for polluting Minnesota's public waters.	WR195
10193	Short-term profits do not justify centuries of pollution.	SO01
<b>Sender Name (Submission ID)</b> David Mccue (31504)		
14004	My god, this is an area where motor boats are restricted. How is it even possible that a proposal like this even gets drawn up on paper. If industrialists had their way the whole world would be a turned over waste land. Between oil, sulfer, and fracking this country is under attack. Leave the forrests alone !!!!!	WILD02
<b>Sender Name (Submission ID)</b> David Mcmillan (18350)		
14634	I want to say to the lead agencies and the DNR that the roles you have been charged with, you have done a thorough and comprehensive job in looking at this and applying the stringent standards in regard to the state's applicable laws, and that the SDEIS and the EIS is accurate, comprehensive and complete.	NEPA16
<b>Sender Name (Submission ID)</b> David Miller (40832)		
10157	the SDEIS fails to consider a range of common sense risks by making rosy and unsupported projections concerning water capture and treatment, wetland mitigation, air pollution and other side effects of a massive, industrial mining zone in the heart of the Superior National Forest.	AIR11, WR017, WR018, WR128, WR202

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	David Miller (40832)	
10158	The NorthMet Project will contribute additional sulfate to the groundwater from tailings basin water that is not captured and treated, water that seeps through fractures in the mine pit walls and stockpile infiltration and run-off.	WR010, WR011, WR070, WR087, WR088, WR107, WR108, WR173
10159	Every year, 11 million gallons of polluted seepage from the tailings basin and 5 million gallons from the mine site will enter groundwater and the environment without being treated.	WR070
10160	All of the PolyMet predictions regarding discharge from the mine pits and waste rock piles...are made without considering the effects of documented fractures at these sites on discharge to groundwater and surface water. Groundwater contamination from the previous mining activities is still an issue near the LTV tailings basin and mine pits.	GT01
10162	PolyMet's favorable water modeling is also based on groundwater base flow data that now appears to have significantly underestimated the likely speed and volume of water flow and resulting sulfate discharge around the mine and processing plant.	WR003
10163	The water infiltration rate is lower than the design targets for engineered controls at landfills, has never been observed in any known wetland system, and accounts for only five percent of precipitation falling at the site.	WR126, WR165
10165	Even the most reasonably foreseeable problems at the site, including pipeline breaks, dam or slope collapse and problems with waste water treatment go unaddressed in the SDEIS.	WR131, WR132
10167	Design for the 100-year storm also fails to account for the current state of our climate and is insufficient.	WR180
10262	PolyMet's discharge would also release arsenic, lead and manganese into the groundwater. These effects must be studied and addressed in the SDEIS.	WR107, WR108
10265	Although PolyMet's testing indicates that its waste rock leaches mercury at more than four times the water quality standard, it proposes not to conduct an analysis of the amount of mercury that will enter the watershed.	MERC16
10272	the sulfate discharges will have adverse effects on wild rice...The proposed engineering controls for the PolyMet mine will not assure wild rice water quality standards are met.	VEG04, WR156
10278	No substantive data indicates that reverse osmosis will work to fully meet water quality standards.	WR143
10282	Even if it were conceivable that PolyMet could monitor and maintain this site to current water quality standards for hundreds of years-which is a simply unbelievable claim- this would not be in compliance with Minnesota law that requires the mine to be left maintenance free at closure.	PER04
10285	To establish this mine would destroy 1,741 acres of high quality ecosystem, including 912 acres of high quality wetlands, with a rich diversity of native plants and provide a wide range of ecosystem services such as reducing the severity of floods, water filtration, carbon sequestration and habitat.	WET24
10287	Yet the proposed exchange of wetland proposed by PolyMet would include sites two-thirds of which are located outside the Lake Superior watershed and would fail to provide in-watershed benefits previously provided by the destroyed wetlands.	WET03, WET15
10290	can pollution be controlled for hundreds of years? The SDEIS weakly attempts to address the mechanical and hydrological aspects of this question, but they are incomplete without addressing how much money will it take to assure Minnesota water quality standards are maintained (without variance) in the face of pollution that is perpetual, without Minnesota taxpayer assistance?	FIN05, WR037, WR128

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Miller (40832)		
10292	The SDEIS makes no effort to consider alternative means to reduce the harm this project would visit upon our Minnesota environment. These could include underground mining, liners under the permanent waste rock pile and the permanent tailings basin, returning waste rock to the west pit to reclaim wetlands and introducing reverse osmosis in year one at the mine site to treat and release water on site and reduce indirect wetlands destruction. Under Minnesota law, economic considerations alone do not justify rejection of alternatives.	ALT01, ALT03, ALT07, ALT10
17358	Engineering controls that are planned for the mine must function perfectly for hundreds of years to meet applicable water standards. The assumed performance of these critical water capture systems in the SDEIS is over 90% effectiveness. This assumption is neither reasonable nor realistic.	PD03
<b>Sender Name (Submission ID)</b> David Miranowski (6253)		
10544	We cherish our beautiful lakes and are all very afraid that if PolyMet fails to be thorough/convincing in their pre-planning efforts, they will be even more reckless in their physical treatment of our land.	LU06
<b>Sender Name (Submission ID)</b> David Moen (36338)		
10009	The study of potential health effects has been inadequate and I am VERY concerned that 10% of infants born in St. Louis County have mercury toxicity today and this project will likely put more citizens at risk.	HU01
10012	The SEDIS study has several deficiencies including inaccurate assumptions about seepage of toxic metals into surface and ground water. Health impacts include complex neurological changes that are irreversible.	WR070
12052	The study of potential health effects has been inadequate and I am VERY concerned that 10% of infants born in St. Louis County have mercury toxicity today and this project will likely put more citizens at risk.	HU01
12053	The SEDIS study has several deficiencies including inaccurate assumptions about seepage of toxic metals into surface and ground water. Health impacts include complex neurological changes that are irreversible.	HU01, WR070
<b>Sender Name (Submission ID)</b> David Oliver (38390)		
14681	The SDEIS provides more than adequate coverage of the NorthMet Mining Project and Land Exchange. ...[The coverage extends] beyond the scope of MEPA and NEPA statutes and criteria. This project should be allowed to proceed to the EIS phase.	PER34
14682	I will trust in the existent laws and statues of the State of Minnesota along with attendant Federal regulations, and the regulatory oversight they bring.	PER34
<b>Sender Name (Submission ID)</b> David Olson (18142)		
13562	We have a need for these metals in our modern lives. They are integral in winter events, electric and hybrid cars, solar panels, and a host of other important technologies and uses. Now is the time to mine them here in Minnesota.	NEPA05
13563	We have reached a point where an important decision needs to be made based on sound science, and to be true to the process set forth by state and federal law. We have confidence in that process. We applaud the DNR and other agencies for the ample time -- twice what the law calls for -- for interested parties to review and provide feedback on the environmental review.	NEPA16

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> David Olson (18142)		
13564	Their investment will return billions of dollars with economic benefits to Minnesota. An estimated 300 million in new local and state tax revenues, and an estimated \$900 million in new federal tax revenues.	SO10
13565	This project will diversify our economy and create hundreds of jobs that can support families and sustain communities. An economic impact that will be felt not only on the Iron Range but throughout the state, which is why the Minnesota Chamber of Commerce and so many local chambers and their members support this project.	SO10
<b>Sender Name (Submission ID)</b> David Passmore (13875)		
138	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
139	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
140	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> David Plotnicky (54664)		
17907	The wetlands mitigation is does not address the watershed of concern.	WET03
17908	The mining industry does not have sterling record for following through on their contract obligations. The community's dependence on mining should show them that it's short sighted, yes they need work, but once the resource is exhausted (profitable recovery), what's going to replace the next economic boom? Something the corporation didn't describe was the proposed wage schedule for the employee's, what are they proposing?	SO01
<b>Sender Name (Submission ID)</b> David R Gadbow (54728)		
18741	Water implications are nothing short of scary when sulfite ore is exposed to water when water is in the form of swamps, rivers and lakes everywhere in the mine location being considered.	WR111
18742	It is impossible to keep the ore or tailing accumulation isolated from water in northern eastern Minnesota. "This is not to mention acid rock dissolves toxic heavy metals, lead, zinc, cooper and mercury allowing them to enter surfaces and ground water."	WR107, WR108
<b>Sender Name (Submission ID)</b> David R Gregorich (54888)		
18811	The ground water will be polluted on both sides of the Laurentian Divide by PolyMet and Twin Metals.	GEN01
<b>Sender Name (Submission ID)</b> David R Witte (42846)		
8489	I also believe that the "economic impact" of the proposed mining project should be ignored in the EIS and SDEIS review process because it shifts the focus to the politically charged issue of "jobs" in an economically depressed area of the State at the expense of a rational objective scientific analysis of the environmental impact of allowing the proposed mining project.	SO04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	David R Witte (42846)	
8489	I also believe that the "economic impact" of the proposed mining project should be ignored in the EIS and SDEIS review process because it shifts the focus to the politically charged issue of "jobs" in an economically depressed area of the State at the expense of a rational objective scientific analysis of the environmental impact of allowing the proposed mining project.	SO04
8494	If the "Economic Impact" is a consideration [in the SDEIS], then that impact should be evaluated in terms of both "a best-case scenario" and "a worst-case scenario" over the course of various time periods (e.g. immediate/construction period, plant life/20 years, long term/50-1 00+ years). In a best-case scenario, the mining project would generate construction jobs, mining jobs, and revenues for the State and local economy without any permanent damage to the environmental. In a worst-case scenario, the mining project generates fewer jobs for Minnesotans, significantly less revenue for the State and local economy than anticipated, the plant and tailings leach sulfuric acid, mercury, and other hazardous hi-products into the ground water, surface water, and tributaries to Lake Superior, the plant is abandoned in one form or another to avoid liability for pollution, the EPA classifies the entire area as superfund site, and the tax payers get stuck with a bill of \$200+ Million to close, clean up, test, and treat the water for the next 100 years or longer, assuming our State and this Country still exist.	SO04
8494	If the "Economic Impact" is a consideration [in the SDEIS], then that impact should be evaluated in terms of both "a best-case scenario" and "a worst-case scenario" over the course of various time periods (e.g. immediate/construction period, plant life/20 years, long term/50-1 00+ years). In a best-case scenario, the mining project would generate construction jobs, mining jobs, and revenues for the State and local economy without any permanent damage to the environmental. In a worst-case scenario, the mining project generates fewer jobs for Minnesotans, significantly less revenue for the State and local economy than anticipated, the plant and tailings leach sulfuric acid, mercury, and other hazardous hi-products into the ground water, surface water, and tributaries to Lake Superior, the plant is abandoned in one form or another to avoid liability for pollution, the EPA classifies the entire area as superfund site, and the tax payers get stuck with a bill of \$200+ Million to close, clean up, test, and treat the water for the next 100 years or longer, assuming our State and this Country still exist.	SO04
8508	My primary concern with respect to this mining project is: (1) The protection of our water resources; (2) The prevention of pollution to our water resources; (3) The prompt abatement and cleanup of any pollution to our water resources by the mining project	WR129
8508	My primary concern with respect to this mining project is: (1) The protection of our water resources; (2) The prevention of pollution to our water resources; (3) The prompt abatement and cleanup of any pollution to our water resources by the mining project	WR129
8513	My primary concern with respect to this mining project is:(4) The provision of adequate financial assurances by PolyMet to the State of Minnesota to pay for the cost of prompt abatement and cleanup of any pollution to our water resources before, during, and after the mine is in operation...Assume the worst case scenario in all phases of the proposed mining project and prepare for those outcomes in the review and approval process by imposing strict standards with low thresholds and require sufficient financial assurance to protect our natural resources and the taxpayers from another environmental disaster	FIN01
8513	My primary concern with respect to this mining project is:(4) The provision of adequate financial assurances by PolyMet to the State of Minnesota to pay for the cost of prompt abatement and cleanup of any pollution to our water resources before, during, and after the mine is in operation...Assume the worst case scenario in all phases of the proposed mining project and prepare for those outcomes in the review and approval process by imposing strict standards with low thresholds and require sufficient financial assurance to protect our natural resources and the taxpayers from another environmental disaster	FIN01
18324	(1) I would like to commend the DNR for the information posted and published on this issue on the DNR website. The quantity, quality, and variety of the information compiled and presented in various formats is truly impressive and greatly appreciated; (2) I found the video presentations posted on the website to be particularly helpful in understanding the size, scope, and context of the proposed mining project.	GEN02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	David R Witte (42846)	
18324	(1) I would like to commend the DNR for the information posted and published on this issue on the DNR website. The quantity, quality, and variety of the information compiled and presented in various formats is truly impressive and greatly appreciated; (2) I found the video presentations posted on the website to be particularly helpful in understanding the size, scope, and context of the proposed mining project.	GEN02
18328	my primary concerns involve the protection and preservation of our water resources. ... we have had periods of drought throughout history and in the last 10 years we have started to see signs of stress on our water resources from drought, pollution, over use, etc. We have seen significant declines in some lake levels (e.g. White Bear Lake and Prior Lake for example), we have had some private and public wells dry up, and we have seen the emergence and spread of numerous invasive species in our lakes, rivers, and streams. ... The wise management of our water resources begins with the protection of our wetlands and watersheds and continues to our lakes and ground water.	WR077
18328	my primary concerns involve the protection and preservation of our water resources. ... we have had periods of drought throughout history and in the last 10 years we have started to see signs of stress on our water resources from drought, pollution, over use, etc. We have seen significant declines in some lake levels (e.g. White Bear Lake and Prior Lake for example), we have had some private and public wells dry up, and we have seen the emergence and spread of numerous invasive species in our lakes, rivers, and streams. ... The wise management of our water resources begins with the protection of our wetlands and watersheds and continues to our lakes and ground water.	WR077
18329	I am not questioning the veracity or integrity of the representatives of Poly Met with respect to the information they have provided to our State or their intent to run the mine in an environmentally safe and responsible manner but I am questioning our ability as human beings to critically and objectively collect, present, and analyze the pertinent information in an unbiased manner, particularly when there are very large amounts of money at stake.	NEPA09
18329	I am not questioning the veracity or integrity of the representatives of Poly Met with respect to the information they have provided to our State or their intent to run the mine in an environmentally safe and responsible manner but I am questioning our ability as human beings to critically and objectively collect, present, and analyze the pertinent information in an unbiased manner, particularly when there are very large amounts of money at stake.	NEPA09
18330	the cost of cleaning up these super fund sites is astronomical and for the most part, falls directly on the taxpayers, which means the sites do not get cleaned up until the EPA has sufficient funds to pay for the clean up. I hate to lace my comments with proverbial wisdom but "An ounce of prevention is worth a pound of cure." Please, do not put Minnesota in this situation.	FIN10
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18331	Assume the worst case scenario in all phases of the proposed mining project and prepare for those outcomes in the review and approval process by imposing strict standards with low thresholds and require sufficient financial assurance to protect our natural resources and the taxpayers from another environmental disaster.	NEPA09
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<b>Sender Name (Submission ID)</b>	David Rannetsberger (47110)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Rannetsberger (47110)		
11251	The enormous amount of effort and study that went into this SDEIS is mind boggling. Spending over 8 years and \$100 million dollars to prove that you can run a mine in a safe manner should be commended by Polymet.	NEPA16
11258	I feel they have taken all necessary steps to comply with the state and federal standards and will continue to do so into the future. I also feel that this project, once operational, will attract more intense scrutiny by State and Federal agencies, environmental watchdog groups, and the local communities, which will further strengthen the environmental stewardship that Polymet has committed to, and continues to show throughout this process.	PER34
11260	I trust that our State and Federal agencies have followed the permitting process to a tee, and that your review and involvement in this process will produce a mining permit that will ensure all aspects of the environment are protected.	PER34
11263	We cannot produce the much wanted green energy without the copper, nickel, and other precious metals in our world. We also cannot import these metals from other parts of the world without knowing that they were produced with more environmental impact to the environment.	NEPA05
<b>Sender Name (Submission ID)</b> David Reisenweber (46436)		
8956	A major omission in the NorthMet SDEIS that particularly concerns me is the affects of weather extremes. A lightning strike or a windstorm could destroy equipment used to move polluted material to the right place at the right time. Is there a backup plan? How will the mountains of sulfide ore be successfully contained when catastrophic precipitation events occur?	PD22
8959	The NorthMet SDEIS lacks plans for accidents and emergencies that will happen, when something goes wrong with ponds, pipes, pumps, filters, etc. needed for water treatment.	PD22
8964	The bedrock of northeastern Minnesota has many cracks and water will probably move differently depending on amounts of precipitation received. Is there flexibility in the SDEIS to find what is moving where? I could not find it.	WR010
8966	Does the state of Minnesota have maps of the complete hydrology of the Duluth Complex where this mining is proposed?	RFI01
<b>Sender Name (Submission ID)</b> David Robert Ott (18249)		
13666	I feel like it hasn't been proven beyond a reasonable doubt that the water quality issues will be adequately addressed. Therefore, I think the risks are too high, and I think it would spoil a great treasure of our state, being the water quality of the whole drainage ultimately going to Lake Superior.	SO01
<b>Sender Name (Submission ID)</b> David Ross (11617)		
3300	It did so because the board understands how the strategic mining industry in Northeastern Minnesota will generate thousands of new jobs for our region. As well, the board appreciates how strategic metals mining will have a positive impact on local tax revenue and education funding.	SO10
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3301	The [Duluth Chamber of Commerce] board realizes how mining companies operating in Northeast Minnesota, such as PolyMet, will utilize advanced technology to protect our environment. We understand PolyMet and other companies will be required to meet Minnesota's rigorous environmental standards to ensure that our air and water quality standards are protected.	PER34

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    David Ross (11617)

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7354 The Duluth Area Chamber of Commerce supports the emerging strategic metals mining industry in Northeastern Minnesota. The Chamber's board of directors passed a formal resolution, illustrating this support, on May 28, 2013.... the board understands how the strategic mining industry in Northeastern Minnesota will generate thousands of new jobs for our region. SO10

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7357 The Chamber [of Commerce]'s board also recognizes and appreciates how members of our Chamber have already benefited from the planning phase of the PolyMet project...Barr Engineering is doing much of PolyMet's environmental work. Additionally, Krech Ojard is providing engineering support to PolyMet. In fact, PolyMet spent more than \$1.2 million doing business with Duluth companies in 2013. SO10

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7358 [the Duluth Chamber of Commerce] recognize that once PolyMet receives its permits, several more Duluth area businesses will provide services and product to the Polymet Project. The positive economic impact of PolyMet will exponentially grow when construction and mining begin. SO10

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7359 the Duluth Area Chamber of Commerce stands in support of the emerging strategic metals mining in beautiful Northeast Minnesota. The PolyMet Project is the most immediate example of this mining. Therefore, the Chamber's board respectfully encourages the decision makers empowered with determining PolyMet's future to allow this needed project to proceed. PER34

7359 the Duluth Area Chamber of Commerce stands in support of the emerging strategic metals mining in beautiful Northeast Minnesota. The PolyMet Project is the most immediate example of this mining. Therefore, the Chamber's board respectfully encourages the decision makers empowered with determining PolyMet's future to allow this needed project to proceed. PER34

**Sender Name (Submission ID)**    David Schluchter (47510)

17637 I am very much against the PolyMet mine, and the connection between many interconnected watershed districts, and the topography of Northern Minnesota - is too precious to chance. WR195

**Sender Name (Submission ID)**    David Steinhorst (54715)

18498 I feel it will provide tremendous opportunities for the people of Mnnnesota without endangering our environment. The provision of jobs for the people of Minnesota and the associated economic benefits as well as the tax benefits for the state are of the greatest irrportance for our future. SO10

**Sender Name (Submission ID)**    David Stever (41747)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> David Stever (41747)		
3263	The five hundred years of water pollution with heavy metals after the mine is something that neither this corporation nor the state are geared towards dealing with.	WR037
3264	Jobs at this price are not a bargain we need to strike. Not for a measly twenty years of jobs.	SO01
<b>Sender Name (Submission ID)</b> David Tomasoni (18107)		
3353	PolyMet is an open-pit mine, which will provide 500 to a thousand construction jobs, 366 direct jobs and over 700 spin-off jobs. Some people say it is not worth it. Well, tell the people of Aurora and Hoyt Lakes that these jobs aren't worth it and see what kind of reaction you get. Tell the people of the Iron Range that mining jobs aren't necessary and see what kind of answer you get. Try to even imagine living on the Iron Range without mining. The entire area would be a huge ghost town.	SO10
3354	PolyMet is mining. This is not sulfide mining, this is precious metals mining. These will be conflict-free metals. In other words, no ten-year-old kids will be employed at 50 cents per day, no wars will be fought to overthrow regimes. But rather, we will have an environmentally considerate mine in a region where mining has existed and provided for our economy for over 125 years.	NEPA05
<b>Sender Name (Submission ID)</b> David Tomassoni (18167)		
13334	Mining is the Iron Range's economy. PolyMet is mining. 500 to 1,000 construction jobs, 366 direct jobs, over 700 spinoff jobs.	SO10
13336	Our green economy demands copper, nickle, platinum, palladium, gold, and more. There are four tons of copper in a windmill. There is copper and precious metals in solar panels, computers, electric cars, medical devices, catalytic converters, TVs, and, yes, broadband. ... There are 39 different minerals in that cell phone. Every one of them must be mined.	NEPA05
13340	do we want to continue outsourcing jobs, importing pollution, and buying our minerals from countries in a constant state of conflict... or do we want to have great-paying, environmentally friendly jobs on the Iron Range with all the benefits to go along with them to develop a domestic source of precious metals to advance our green economy? The choice is clear, it's PolyMet.	SO10
14656	This is a good document. This is a document that has been scrutinized and gone over and over. Wetlands have been mitigated. There will be no acid drain off that has not already been decided.	WET25
<b>Sender Name (Submission ID)</b> David Welch (18262)		
13715	My substantive comment is a comprehensive analysis of water flow cannot be done. Climate change is progressing so rapidly that it is not possible to predict with accuracy the extent of pollutant migration into the hydrological system. Mitigation must be planned from the basis that passive water treatment is not applicable due to the inability to accurately project rainfall and to accurately project future rainfall and climate change.	WR196
<b>Sender Name (Submission ID)</b> David Williams (39370)		
6275	Copper/heavy metal mining will put the BWCAWin jeopardy. This area has a great many lakes and includes two watersheds, one emptying into the Hudson Bay and the other into the Great Lakes. These watersheds represent a substantial amount of the fresh water reservoir on the planet.	WR024, WR081, WR111
6279	Sulfate contact with surface or groundwater, accidental or otherwise, results in acidification of thewater. Lakes and wetlands in NE Minnesota are very sensitive tochanges in ph. Small changes effectively "poison" the the water and will kill fish and wildlife.	WI04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> David Williams (39370)		
6288	... multiple treatment and containment techniques detailed in the SDEIS will be employed to manage the threat of environmental damage. However, despite best efforts at protection, every existing copper mine has caused significant environment damage.	PD26
6310	In an anticipation of the possible future cleanup costs, there are suggestions, not detailed in the SDEIS, of a surety bond or some financial instrument that sets aside monies to pay for ongoing management/treatment of the mine's waste products. Given that few corporations remain in business for hundreds of years, including those involved in mining or backing bonds, how then can Minnesotans be assured that we collectively will not be responsible for future cleanup/ treatment costs associated with copper mining?	FIN01, FIN08, FIN10
6313	We should increase our recycling efforts and/or mine copper in areas where there is less freshwater than in the "land of 10,000 lakes."	ALT09, ALT16
<b>Sender Name (Submission ID)</b> David Yount (11647)		
2356	My comment concerns the Reverse Osmosis (RO) process for removing sulfate from the waste water so that the discharge water from the RO process contains lower sulfate levels. I have not seen any discussion in the SDEIS as to the disposal of the high-sulfate water that is left behind (filtered out).	WR115, WR195
2356	My comment concerns the Reverse Osmosis (RO) process for removing sulfate from the waste water so that the discharge water from the RO process contains lower sulfate levels. I have not seen any discussion in the SDEIS as to the disposal of the high-sulfate water that is left behind (filtered out).	WR145, WR147
<b>Sender Name (Submission ID)</b> David Zelinsky (58166)		
19915	I am a professional engineer in metallurgical engineering. My review of the PolyMet draft EIS and SEIS is that the report...appears as a thorough evaluation of the project, potential impacts, and how to mitigate the impacts has been completed. They will use the best available technology to create an effective operation.	NEPA16
<b>Sender Name (Submission ID)</b> Dawn Demaske (40205)		
6645	Our state's water, environment, animal habitat and public health are more important and precious than an international company profiting from this proposed mine.	WI02
<b>Sender Name (Submission ID)</b> Dawn Donahue (54519)		
18740	Please be very careful about the decisions you make about the Polymet Mine in the Northern Lakes Region. Our vacation there last year was a wonderful memory and we'd love to return to see the unspoiled beauty again.	WILD02
<b>Sender Name (Submission ID)</b> Dawn Drouillard (9637)		
240	The SDEIS greatly underestimates groundwater flow rates. Real and accurate numbers are needed to predict the actual pollution and seepage from mine pits and the actual size of waste rock piles to be added to the Partridge River watershed.	WR003, WR071, WR086, WR087, WR088
241	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin failure and extreme rain events, like the one in 2012, are not covered in their plan.	PD22

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dawn Drouillard (9637)		
243	200 or 300 jobs compared to over 245,000 jobs in the tourism industry seems like a very bad trade.	SO01
1350	Details about financial assurance — a “damage deposit” the company provides — are not provided in the revised mine plan. The public does not know how much 500 years of water treatment will cost. According to Grand Portage Water Quality Specialist Margaret Watkins, this number could be in the 100 billion dollar range, a figure she calculated using the mining company's own financial assurance formula. The SDEIS does not address how the company will be held responsible for centuries of costly water treatment — or how the public will be protected from liability.	FIN01, FIN05, FIN10
1352	During operations, over 6.2 million gallons of polluted water a day will need to be treated. The mine plan does not describe what will happen if the water treatment plants break down.	PD22
1353	The plan for at least 500 years of active water treatment violates Minnesota Rules (6132.3200) that call for the mine to be left maintenance free at closure.	PD02
1354	526 acres and over 167 million tons of reactive waste rock would be left on the surface. Surrounding this would be a system to collect contaminated seepage that must be monitored and maintained for hundreds of years or longer. A plastic sheet placed over the waste rock pile would require annual maintenance, repairing of erosion, and removal of deep-rooted woody plants that might perforate the synthetic material.	WR127
1356	A pit “lake” and tailings basin pond would be left whose water levels would need to be maintained through pumping to prevent contaminated overflows into the nearby Partridge River and the Embarrass River. I don't believe that PolyMet will see this situation through for 500 years or more.	WR037, WR129
<b>Sender Name (Submission ID)</b> Dawn Hofstrand (14649)		
8875	How will Polymet prevent polluting Minnesota's waters if we experience a massive storm with substantial, torrential rain such as that experienced by Duluth within the last two years? What is the contingency plan to protect our waters?	PD22, WR130, WR202
13781	Before allowing sulfide mining by Polymet in this area, the citizens of Minnesota deserve certain assurances from Polymet regarding the safety of its mining plan. At the very least, these assurances should include contingency plans for protecting Minnesota's waters when the best-case scenarios envisioned by Polymet's plan do not occur.	PD22
13783	2. The Polymet mine plan requires continuous water treatment at various wastewater treatment plants. How will Polymet prevent polluting Minnesota's waters if the wastewater treatment plants breakdown? What is the contingency plan to protect our waters?	PD22
13784	3. The Polymet mine plan envisions the use of massive tailings basins for the waste rock. How will Polymet prevent polluting Minnesota's waters if the tailings basins leak? What is the contingency plan to protect our waters?	PD11
<b>Sender Name (Submission ID)</b> Dawn Trexel (39255)		
12624	Just because there is a company interested in mining our minerals doesn't mean now is the best time to do so... Perhaps in the future we will have more sustainable methods for extracting such minerals.	SO02
<b>Sender Name (Submission ID)</b> Dean & Peggy Erzar (44366)		
10380	The governing bodies did a great job on the SDEIS and should continue making changes and watching out for us as the process goes on.	NEPA16

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Dean Borgeson (50080)

13023 The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site. FIN10

**Sender Name (Submission ID)**    Dean Erickson (18385)

2892 The addition of potential sulfuric acid drainage into the St. Louis River Watershed, which is the largest watershed in the United States, flowing into the largest body of fresh water on earth seems unacceptable. WR111, WR195

2896 I also just want to point out that we base our predictions of water flow on the past. What we're seeing in the future is not the same as what we've seen in the past. We have minimal understanding at the revolution we need of climate change impacts in our watershed. And the flush scenarios are likely inadequate. WR180

2898 the MEPA and the other organizations that are collaborating to do this, ...we expect to spend \$420 million cleaning up our mess in the area of concern. .... it seems contradictory I guess I would say to be spending that much money to be cleaning up something when we're not tending to the 11 headwaters. SO02

2899 we are a ceded territory. And we have a lot of things that we need to take care of on behalf of the original people on this land. CR01

**Sender Name (Submission ID)**    Dean Flugstad (15811)

911 How will retention dams hold back sulfide and toxic metals for hundreds of years. WR132

912 Mining of all kinds has a very poor long term record in environmental integrity. It is get in, extract, get out and let the people pay for the clean up and mourn their lost environs. FIN01

2008 A 2200 page document perhaps was intentionally made so long it could hide all sorts of sins. NEPA07

**Sender Name (Submission ID)**    Deanna Erickson (20103)

1733 The Polymet Draft EIS does not make any mention of the Area of Concern or the Beneficial Use Impairments, nor does it adequately address how these impairments might be mitigated in the event that sulfuric acid enters the water column of the St. Louis River. WR012, WR130

1734 I am not in favor of this proposal and believe that on behalf of the largest US river entering the largest freshwater lake in the world, we are internationally obligated to deny permits for the Polymet operation. PER35

**Sender Name (Submission ID)**    Deanna Greene (42529)

15561 This area was established in part by mining – giving many people in this area jobs. The beauty of the area – land, water, animals, and air – reflects many positives of how, through the mining across the Range, it has stood strong. Mining brings jobs – jobs bring a community security with economic stability. The “earth” WILL survive and, more importantly, people will have the means to earn a living and financially independent. SO10

**Sender Name (Submission ID)**    Deanne Roquet (43827)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Deanne Roquet (43827)		
15944	PolyMet would be a huge consumer of electricity, much of it coming from dirty, inefficient coal power plants in Minnesota. As the SDEIS states, PolyMet would emit 707,342 metric tons of carbon dioxide pollution into the atmosphere every year. This would contradict Minnesota's goal to reduce carbon emissions... The Minnesota DNR, through the mine plan, should require use of clean energy to reduce impacts of pollution.	AIR01
15945	The PolyMet mine site has large amounts of peatlands that have been storing carbon for thousands of years. When PolyMet's regular mining practices disturb the peatlands, they will release nearly 200,000 metric tons of carbon pollution into the atmosphere. In order to stay on track for Minnesota's carbon reduction goals, these peatlands and their stored carbon should be left undisturbed.	WET13
16068	The SDEIS (page 5-124) uses 1980s data to plan for extreme weather events. It fails to examine the impact of precipitation events any greater than the "100-year storm." Given climate change, this design is insufficient.	WR057, WR080, WR176
16069	PolyMet must be designed to handle larger volumes of wastewater. The Minnesota DNR should include a 500-year storm analysis of both the mine pits and the tailings basin. Heavy rainfall such as occurred in June 2012 in northeast Minnesota could result in an overflow of contaminated water into the environment. This trade-off is not worth the risk.	PD22, WR130, WR132, WR180
16070	the SDEIS should have included a thorough discussion of financial assurance - how much money, and in what form, the mining company should put down to cover the costs of cleaning up the site and addressing problems. The SDEIS is over 2,000 pages long, but includes just a couple pages generally discussing financial assurance. There is no indication of how much financial assurance the agencies are thinking should be required, and there is no discussion of the agencies thought process in arriving at a figure.	FIN01, FIN05, FIN08
16071	The agencies view that financial assurance be addressed in permitting is contrary to the intention of environmental review, and reduces the public's ability to comment as effectively as is possible during the SDEIS comment period.	FIN13
16073	If allowed to move forward, the PolyMet mine proposal would set a dangerous precedent for Minnesota's environmental safety.	PER07
16075	Minnesota is uniquely vulnerable to climate change, particularly the boreal forest of northern Minnesota.	AIR01, VEG03
<b>Sender Name (Submission ID)</b> Deb Brinkman (19960)		
1556	The SDEIS is inadequate; it does not provide any reassurance that this mining will not result in irreparable harm to the watery environment in our Arrowhead. PolyMet's proposed mine threatens our clean water and public health.	HU03, WR115
14220	500 years of pollution is unacceptable.	FIN10
<b>Sender Name (Submission ID)</b> Deb Bryant (45866)		
10258	I am vehemently opposed to the prospect of a copper sulfide mine being developed in Minnesota for many reasons to include the poor track record of the Glencore corporation, the risk to habitat and water quality, and the direct disruption such activity would create next to a wilderness area.	WILD02, WR023
10260	The estimated gain of a limited number of jobs for a mere 20 years is not worth the huge risk of damage done that will last potentially for centuries.	SO01
10261	There is huge weakness in the environmental draft statement pertaining to water quality, and based on the unsuccessful track record of preventing environmental damage as demonstrated through other such mines, there can be no assurance that the proposed mine will be any different.	WR023

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Debbie (7726)		
61	this EIS should not be accepted and/or approved until a long-term (20 year minimum) research project be conducted in Minnesota on the accumulated effects of mercury on children and women.	SO04
72	Since there has never been a sulfide ore mine in the world that has not polluted and has not left a polluted site for taxpayers to bare the burden to live with and try and clean up; why does the DNR and the state of Minnesota think that proposed Polymet project will be any different?	WR023
73	The MNDNR and MPCA must require that any and all wetlands that are impacted be replaced within St. Louis County and must be replaced by preserving 100 acres of existing natural wetlands to every 1 acre of wetlands that will be impacted.	WET03, WET04
834	This project will significantly increase mercury pollution.	GEN01
835	This project will adversely effect the Partridge River watershed and the St. Louis watershed by eliminating over 900 acres of pristine wetlands and by the potential for contaminating this watershed with sulfide ore runoff. This watershed is part of the Lake Superior watershed and the Great Lakes watershed.	WET24, WR111
<b>Sender Name (Submission ID)</b> Debbie Engel (42833)		
7333	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
7333	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	NEPA16, SO10
<b>Sender Name (Submission ID)</b> Debbie Thompson (40828)		
13999	I have lived in Minnesota my whole life and "Northern Minnesota" is our treasure. PolyMet will never be able to guarantee it won't be ruined.	WILD02
<b>Sender Name (Submission ID)</b> Debbie Tilman (54666)		
17898	I believe that Polymet Mining will and can do everything in their power to run a good business, provide jobs, act accordingly with the State of MN, DNR and other environmental agencies. They've been in the news and public eye way too long not too!	PER34
<b>Sender Name (Submission ID)</b> Debby and David Ortman (54685)		
17865	We would rather see government efforts put towards recycling and reusing the already valuable minerals we have in circulation than trying to eke out the minute amounts found in the hard rock of Northern Minnesota.	NEPA06
<b>Sender Name (Submission ID)</b> Deborah (42918)		
11385	The SDEIS assumes that all the water that needs to be treated will be collected, contained, and treated, and no contaminated water will escape. Such optimism is naïve and foolhardy—leaks, spills, etc., from containment systems must be anticipated and prepared for with measures that will immediately be triggered to prevent the water from reaching groundwater, wetlands, streams and rivers.	WR130

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Deborah (42918)	
11388	The SDEIS assumes that the bedrock under the mine and plant sites is solid and will not allow seepage and runoff to flow into groundwater and elsewhere. This is a faulty assumption. The bedrock in this vicinity has multiple faults, fractures and fissures, through which water will flow to unknown locations.	WR012
11426	PolyMet also states that its mine will operate for up to 20 years, but it will leave behind millions of gallons of polluted water for hundreds of years. Polymet states that it will be able to capture all of this contaminated water and treat it for as long as is needed, which is likely to be hundreds of years ... If treatment ends before the pollutants are removed, copper, lead, and sulfates will impact the Embarrass, Partridge and St. Louis River watersheds and Lake Superior for centuries.	WR035, WR115
11432	...membrane liners and geosynthetic covers that are intended to prevent precipitation from percolating through the waste rock and tailings into the environment, WILL eventually leak—they have not been shown to last for hundreds of years without cracking or breaking, or being damaged by erosion, growth of roots, shifting or settling of the ground, or other factors that should be expected. This means that contaminated water collected in pits lined with membrane liners WILL eventually leak into the environment...Polymet has not shown that its lining and barrier systems will completely function for the hundreds of years needed.	WR127, WR138
11434	The modeling used to estimate the speed and quantity of groundwater flowing through the site is flawed and leads to a conclusion that underestimates the quantity of pollutants that will reach nearby rivers, as well as the speed with which they will arrive in the rivers. ...The groundwater movement model should be re-done, using much more realistic baseflow averages plus scenarios in which large amounts of precipitation occur in a short period of time.	WR003, WR189
11437	It is simply too risky to move forward with the SDEIS and PolyMet project without clear understanding of the underground faults and fractures that could transmit contaminated water to places unknown....In addition, the effects of repeated blasting on underground rock formations, and these faults and fractures, is unknown—it's certainly possible that they will become larger or more numerous, changing the flowage of contaminated water	WR010, WR016
11442	Retracting contaminated/acidified water—the SDEIS does not explain how damage can be retracted. If leakage occurs, or worse, a spill, how can the acidified water be pulled back? It can't—it proceeds downstream, and down into groundwater,...leaching dangerous heavy metals and mercury into the environment. ... Is there a proven way of restoring the surface and groundwater to its normal Ph? The SDEIS does not adequately address this topic and therefore is inadequate.	WR001, WR130
11459	Contingency plans should be prepared and in place before mining operations start, that address both foreseeable problems and unanticipated events.Foreseeable problems include accidents, unusual storms, and failure of man-made systems. ... I submit that even more extreme weather events than the Duluth flood must be anticipated and adequately planned for. The SDEIS does not include sufficient assurance of contingency plans to protect the environment in the event of both foreseeable and unforeseen catastrophes.	WR057, WR077, WR176, WR180, WR193, WR197
11462	The rock at the PolyMet mine site contains amphibole ("asbestos-like") fibers that have been linked to mesothelioma. Both the effects of airborne particulate on health and the effects of ingesting airborne copper, mercury, etc. on human and animal health should be analyzed before PolyMet's proposal can proceed.	HU05
11470	The current SDEIS does not provide adequate information on....The costs of contingency plans ... for both foreseeable events and for the worst scenarios. These include the costs of monitoring to immediately identify leaks, spills, breaks, etc.....The cost of financial assurance to protect Minnesotans.....The actual costs of monitoring, maintaining, and replacing treatment equipment over many decades or even centuries.....The costs of long-term maintenance and management of wetland mitigation sites in addition to the mine and plant sites. In addition, the costs of retracting damage should be factored in	FIN05, FIN11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Deborah (42918)	
11491	The SDEIS must include the details of how the contaminated water that seeps or spills will be neutralized before it causes damage to flora and fauna and leaches heavy metals including mercury into the watershed.	WI04, WR130
11499	financial assurance must cover the costs of contingency mitigation measures (MInn. Rule 6132.1200) if engineering controls become unable to ensure compliance with applicable water quality standards. The SDEIS states that contingency mitigation measures would not be initially included in the financial assurance package (5-215). This is foolhardy—failure or inadequacy should be anticipated as reasonably likely, and the costs of repairing or replacing the controls as well as costs of mitigating damage that occurs before completion of the repair or replacement should be built into the financial assurance required.	PER03
11528	Ongoing and recent studies are showing the devastating impact of sulfates on wild rice. ...PolyMet claims that it can meet the current sulfate standards, but its promise does not address the ... [sulfate accumulation from] untreated, contaminated water that will seep or flow from the sites. .... In addition, PolyMet’s assertion that it will meet current sulfate standards assumes that all the engineering controls, including the seepage capture system, the cap and liner system, the discharge controls, as well as the wastewater treatment system will all function perfectly for hundreds of years.	WR070, WR127, WR128, WR156, WR159
11534	The SDEIS ...[does not] consider the potential cumulative environmental impacts of current mining activity as well as new exploration and potential mining and processing throughout the region. Rather, it restricts the cumulative effects assessment area (CEAA) to the Embarrass and Partridge River watersheds, and does not even include the St. Louis River or Lake Superior. The impacts on Northern Minnesota the entire Great Lakes basin should be evaluated.	CU01, CU02
11539	Current mining interests seek variances, and current regulatory agencies often allow them, without public notice or comment. The validity of PolyMet’s assurances and the validity of the SDEIS’s analysis are both undermined if at some date PolyMet or its successor(s) seeks variances and the regulatory agency grants them. ... What assurance do we Minnesotans have that variances or exemptions won’t be granted to PolyMet (or its successor) in the future? The SDEIS doesn’t provide sufficient assurance that monitoring and enforcement of requirements will be strong and vigilant over the hundreds of years needed	PER06
17437	The potential for severe environmental damage from this kind of mining, never done before in Minnesota, is huge. While we all hope sulfide mining can be done in this water-rich environment without damage, experience throughout the world shows otherwise.	WR023
17438	The SDEIS does not adequately address the measures that will be required to be in place in the event of accident or failure of water containment, transport, or treatment systems.	WR130
17439	significant amounts of untreated water—which is contaminated to some degree despite PolyMet’s assertions—will seep into the environment, completely by-passing any preventive efforts. The SDEIS does not adequately recognize this as a concern.	WR107, WR108
17440	Despite PolyMet’s promise to contain all contaminated water, its own mine plan shows that millions of gallons of polluted water will seep off site, untreated, during usual operations. Flooding events and other catastrophes will exacerbate the damage. The SDEIS must address how the millions of gallons of untreated water will be kept from flowing into the Partridge and Embarrass Rivers, to the St. Louis River and ultimately into Lake Superior.	WR070, WR107, WR108, WR111, WR130, WR202
17441	PolyMet has not shown that runoff and/or seepage from the permanent waste rock pile and the tailings piles will be prevented adequately. It doesn’t even propose that liners be installed under all the tailings piles and waste rock. PolyMet proposes to store tailings in the former LTV tailings basin, on top of tailings that are already leaching contaminated water.	WR070, WR127

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Deborah (42918)	
17443	The process of extracting the copper and other minerals from the rock will require the waste rock to be ground into a fine powder, some of which is likely to escape into the air and become a risk to humans and animals. In addition, additional material is likely to become airborne during transit of the waste rock to storage areas. The particulate itself is likely to be harmful to air-breathing animals, and the contents of the particulate, including copper and mercury, could be harmful as well to human and animal health.	AIR04
17446	The waste rock will leach mercury at more than 4 times the water quality standard (according to PolyMet’s humidity cell testing). ... PolyMet states that “insufficient data” prevents it from modeling the amount of mercury that will enter the rivers. However, the SDEIS itself states that PolyMet will “increase mercury concentrations in the Embarrass River as well as some nearby lakes... the City of Hoyt Lakes’ municipal drinking water is downstream from PolyMet’s waste piles. ... 1 out of 10 infants in Minnesota’s Lake Superior Region already are born with unsafe levels of mercury in their blood. Adding greater mercury concentration to the watershed will increase the danger to humans. PolyMet should not be allowed to proceed	WR158
17448	The SDEIS also is inadequate regarding the financial assurance required to protect the state of Minnesota and its taxpayers. No one should bear the costs of clean-up of any environmental damage other than the companies and people profiting from the mining. Minnesotans should be absolutely guaranteed that, if there is any environmental damage, resources in sufficient amounts have been set aside up front to cover all the costs of remediating the damage, or better yet, retracting it.	FIN01, FIN10
17449	The SDEIS should address the means to "reclaim" the water that's been acidified, the plants and animals killed off, the surface water and groundwater restored to pre-damage levels of water quality. The SDEIS should address these means, and the costs to implement them.	FIN11
17450	Long-term financial assurance must be adequate and safely protected from being diverted to other uses, so that it is available if and when it is needed. ...The need for water treatment will continue...for decades and perhaps centuries.... PolyMet asserts that it “does not need to know” the length of time for which reclamation costs should be estimated, but that PolyMet will provide whatever is needed. ... How can the amount of needed financial assurance be calculated if one critical factor—the length of time for which it is needed—is unknown? How can the state be assured that the financial assurance will cover the costs, if we don’t know how long those costs will last, and therefore can’t know the total costs?	FIN01, FIN05, FIN08
17452	The financial assurance must be enough to protect Minnesota taxpayers, long after the mine ceases operations and, likely, long after PolyMet and its successors are gone. This includes protection from bankruptcy or dissolution—of PolyMet and of any other financial backing of the enterprise-- that would leave Minnesotans liable for any costs. The risks of the entire enterprise should be entirely on the company, its partners and investors.... The SDEIS is inadequate—it does not provide nearly enough information with which to estimate the anticipated reclamation costs, and it doesn’t provide a financial assurance plan that will remain viable for 500 years, or that accounts for unanticipated liabilities, or that anticipates the inability of third parties to pay.	FIN01, FIN02, FIN05, FIN10
17454	The DNR asserts that further information on financial assurance is not required until the Nonferrous Permit to Mine stage of the process, and therefore is not required in the SDEIS. While this position may technically be correct under the current state of Minnesota’s laws and rules governing the process, it does not adequately protect Minnesota’s taxpayers, and therefore is a shirking of the DNR’s duty to carry out its responsibilities. See Minn. Stat. Sec. 116D.04, subd.6.... The DNR and other lead agencies have the opportunity—and the responsibility—to ensure that this critical component of the PolyMet proposal is open for full public disclosure and ability to comment at the SDEIS stage.	FIN13, FIN14
17455	There are ... several concerns related to the economic impact of the PolyMet proposal: oThe boom-and-bust cycle of most mining means any economic improvement will be short-lived.OMost of the profits will go to stockholders and investors located elsewhere. ONon-mining jobs associated with more sustained economic activity (such as recreation and tourism) will likely be lost and not recoverable long after the mine closes.OMany of the jobs will not be long-term, full-time jobs for Minnesotans. OMany of the more highly skilled jobs will go to people who come to the area temporarily and send their incomes back to their permanent residences.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Deborah (42918)		
17458	PolyMet predicts about 360 direct jobs and 330 indirect jobs in the local area during operations. It doesn't specify that each is a full-time permanent job, nor that the jobs would all employ local residents. ...Construction is ...expected to at least "marginally reduce the unemployment rate" in the study area. ... Upon closure of the mining operations, far fewer people would be employed, the remaining jobs being in closure and reclamation activities. P. 5-499. So few jobs., for such a comparatively short period of time, are not worth the risk to the ecosystem of the St. Louis River watershed and Lake Superior.	SO01
17459	While the SDEIS acknowledges that mining activities typically follow a boom-bust cycle, it does not analyze the aftermath of the "bust", including the impact of the loss of jobs on the economy. It states that the boom-and-bust phenomenon was not modeled "because the duration cannot be predicted." p. 5-496. The SDEIS simply says that unemployment will increase, and goes no further....The SDEIS should thoroughly assess its impact, to present a complete picture of PolyMet's environmental impact.	SO02
17460	the SDEIS barely mentions the loss of jobs in non-mining activities. While acknowledging that an indirect effect on tourism and recreation might occur due to noise, dust, water pollution and other disturbance, it does not estimate the loss of recreation and tourism-related jobs in the area or examine the effects of the loss of those jobs. The displacement of other economic activity, including jobs and income related to hunting, fishing, eco-tourism, outdoor recreation, and the destruction of habitat for many species is ignored.The SDEIS is inadequate.	SO02
17461	The land exchange proposed by PolyMet would circumvent federal law by taking 6,700 acres in the Superior National Forest that are now protected from strip mining under the Weeks Act, and exchanging them for private lands acquired by PolyMet. The only reason for the land exchange is to remove it from Superior National Forest and federal protection from mining. I oppose this land exchange—it will take protected land and submit it to devastating strip mining.	LAN02
17464	The SDEIS states that the comments and supporting documentation submitted by the Tribal Cooperating Agencies have not been verified or validated and examination of the points they make is being "deferred." P. 8-20. The reader is simply referred to Appendix C. This approach does not give the public the opportunity to know and comment on the lead agencies' analysis of the Tribal Cooperating Agencies' assertions.	NEPA12
<b>Sender Name (Submission ID)</b> Deborah A Ramos (54528)		
19046	If Canada is own by the Queen of Enland and that Enland rejects exports from the USA pertaining to international laws... Then we have the right to stop the company from Canada coming here and destroying MN.	PER35
<b>Sender Name (Submission ID)</b> Deborah Cheek (32765)		
13830	There are things in our lives and in the world that are much more valuable and precious than money. The National Forest lands near the Boundary Waters Canoe Area Wilderness and Lake Superior are considered by some to be one of the most beautiful wilderness areas in the world...My heart aches that some corporation thinks that it is right/moral to seek permission to put an open pit sulfide mine on this land.	SO01
<b>Sender Name (Submission ID)</b> Deborah Crocker (50717)		
11009	It seems to me the costs are TOO great just for a few jobs.	SO01
13131	If this goes through it will COST US big time!!! It will destroy our great north woods, animal life, AND the money from tourism!!! It will also cost us money to clean up!!! It will probably never really be clean or will we have our great north woods ever again, at least in my life time. It seems to me the costs are TOO great just for a few jobs.	SO02, WI13

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Deborah Crocker (50717)		
13132	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
13425	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
13427	If this goes through it will COST US big time!!! It will destroy our great north woods, animal life, AND the money from tourism!!! It will also cost us money to clean up!!! It will probably never really be clean or will we have our great north woods ever again, at least in my life time. It seems to me the costs are TOO great just for a few jobs.	SO01
<b>Sender Name (Submission ID)</b> Deborah Gibbons (43573)		
11243	My presence and my vote will always be against destruction of the native forest in any way.	VEG03
11246	Reject the PolyMet open-pit sulfide mine and wastes proposal due to its unacceptable risks to human health.	HU03
<b>Sender Name (Submission ID)</b> Deborah Huskins (18232)		
13582	PolyMet says that they can capture all of the contaminated water on site and treat it before it's released into the environment. Their own mine plan shows they will have millions of gallons of polluted water that will seep offsite untreated. PolyMet will be collecting some of the water in pits lined with membrane -- membrane liners. These liners will eventually leak. What will happen if we have a flood event like the Duluth flood event?	WR070, WR127
13583	Contingency plans are important. No one has explained how the damage can be retracted once it occurs. If leakage occurs, or worse, a spill, how can the acidified water be pulled back? It can't. It proceeds downstream and down into the groundwater killing plants, fish and all aquatic life it contacts, leaching dangerous heavy metals and mercury into the environment.	PD22
13584	Reclamation costs are used to determine what the financial assurance is that will be required. But how can we give a dollar value to the damage once it's occurred? Financial assurance must be enough to protect Minnesota taxpayers in the future; long after the mining company is gone. Protection from bankruptcy is important, also, because Minnesotans otherwise would be left liable for any costs.	FIN05, FIN10
13585	It [the SDEIS] doesn't provide a financial assurance plan that will remain viable for 500 years and account for all unanticipated liability. How can it? How can a corporate entity be held accountable for these costs over centuries? The answer is get all costs up front. But we really don't know what the costs of the water treatment monitoring maintenance and repair for decades and even centuries are.	FIN01, FIN05
13586	Another reason the SDEIS is inadequate is that the economic analysis is not complete. What jobs really will go to Minnesotans and which ones will go to non-Minnesota, non-U.S. employees? What about the jobs that are displaced or disappear when the mining starts, and what about those jobs that disappear afterwards? A cost-benefit analysis is needed. When the mine closes, there will be costs due to the impact of lost jobs, unemployment and other societal costs. The SDEIS does not take these into account.	SO06
13587	Displacement of other economic activities should be part of the cost-benefit analysis, including activities associated with hunting, fishing, ecotourism and outdoor recreation.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Deborah Huskins (18232)	
17960	The SDEIS assumes that all the water that needs to be treated will be collected, contained, and treated, and no contaminated water will escape.(...) The SDEIS does not adequately address the measures that will be required to be in place in the event of accident or failure of water containment, transport, or treatment systems. In addition, significant amounts of untreated water-which~ contaminated to some degree despite PolyMet's assertions-will seep into the environment, completely by-passing any preventive efforts.	WR070, WR129, WR130, WR131
17961	If treatment ends before the pollutants are removed, copper, lead, and sulfates will impact the Embarrass, Partridge and St. Louis River watersheds and Lake Superior for centuries. Despite PolyMet's promise to contain all contaminated water, its own mine plan shows that millions of gallons of polluted water will seep off site, untreated, during usual operations. Flooding events and other catastrophes will exacerbate the damage. The SDEIS must address how the millions of gallons of untreated water will be kept from flowing into the Partridge and Embarrass Rivers, to the St. Louis River and ultimately into Lake Superior.	WR037, WR070, WR202
17962	PolyMet has not shown that runoff and/or seepage from the permanent waste rock pile and the tailings piles will be prevented adequately. (...) Polymet has not shown that its lining and barrier systems will completely function for the hundreds of years needed.	WR127, WR128
17963	The modeling used to estimate the speed and quantity of groundwater flowing through the site is flawed and leads to a conclusion that underestimates the quantity of pollutants that will reach nearby rivers, as well as the speed with which they will arrive in the rivers.	WR009
17964	The SDEIS assumes that the bedrock under the mine and plant sites is solid and will not allow seepage and runoff to flow into groundwater and elsewhere. This is a faulty assumption. The bedrock in this vicinity has multiple faults, fractures and fissures, through which water will flow to unknown locations. (Data sources: several studies by Miller, J.D. Jr. and Severson, M.J., 2005 Bedrock geology of Babbitt quadrangles, Minnesota Geological Survey Miscellaneous Map series M-100-150, and Jirsa, M.A., et al, Bedrock geologic map of Minnesota: Minnesota Geological Survey State Map Series 5-21) .	WR012
17965	Retracting contaminated/acidified water-the SDEIS does not explain how damage can be retracted. If leakage occurs, or worse, a spill, how can the acidified water be pulled back? It can't-it proceeds downstream, and down into groundwater, killing the plants, fish, and all aquatic life it contacts, leaching dangerous heavy metals and mercury into the environment.	PD22
17966	The process of extracting the copper and other minerals from the rock will require the waste rock to be ground into a fine powder, some of which is likely to escape into the air and become a risk to humans and animals.	AIR07
17969	The SDEIS also is inadequate regarding the financial assurance required to protect the state of Minnesota and its taxpayers.(...) The current SDEIS does not provide adequate information on 1) the reasonably anticipated costs of foreseeable problems, 2) the costs of currently unforeseen events, and 3) the duration of remediation efforts. Much more information is needed to determine the amount of financial assurance that the state should require before granting any permissions to mining interests to proceed.	FIN05, FIN06, FIN10
17973	o The boom-and-bust cycle of most mining means any economic improvement will be short-lived.O Most of the profits will go to stockholders and investors located elsewhere.O Non-mining jobs associated with more sustained economic activity (such as recreation and tourism) will likely be lost and not recoverable long after the mine closes.O Many of the jobs will not be long-term, full-time jobs for Minnesotans.O Many of the more highly skilled jobs will go to people who come to the area temporarily and send their incomes back to their permanent residences.	SO02
17974	The land exchange proposed by PolyMet would circumvent federal law by taking 6,700 acres in the Superior National Forest that are now protected from strip mining under the Weeks Act, and exchanging them for private lands acquired by PolyMet.	LAN02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Deborah Huskins (18232)		
17975	Ongoing and recent studies are showing the devastating impact of sulfates on wild rice. (...) PolyMet claims that it can meet the current sulfate standards, but its promise does not address the untreated, contaminated water that will seep or flow from the sites. The SDEIS is inadequate because it does not address the sulfate accumulation from untreated contaminated water.	WR070, WR127, WR128, WR150, WR156, WR159
17976	The SDEIS states that the comments and supporting documentation submitted by the Tribal Cooperating Agencies have not been verified or validated and examination of the points they make is being "deferred." P. 8-20. The reader is simply referred to Appendix C. This approach does not give the public the opportunity to know and comment on the lead agencies' analysis of the Tribal Cooperating Agencies' assertions.	CR06
17979	The SDEIS considers only the PolyMet proposal, not the other sulfide mining exploration efforts already underway in Northern Minnesota in anticipation of developing mines. Neither does it consider the potential cumulative environmental impacts of current mining activity as well as new exploration and potential mining and processing throughout the region.	CU02
17980	The SDEIS doesn't provide sufficient assurance that monitoring and enforcement of requirements will be strong and vigilant over the hundreds of years needed, and is inadequate in this respect.	PER06
<b>Sender Name (Submission ID)</b> Deborah J Rasmussen (42740)		
12041	The mine site in question is now part of the Superior National Forest and a land swap is proposed with the Forest Service. What land would be exchanged for the proposed mining site and how would this affect the plants, wildlife, and overall well-being of the Superior National Forest?	VEG01, VEG03, WI01
12042	PolyMet proposes to add processing waste from the new plant to an existing tailings basin that is currently leaking polluted water. How will this leakage be corrected in order to fully protect groundwater and the environment?	PD10, WR105
12044	[Water] treatment would be required at the mine site for a minimum of 200 years and at the plant site for a minimum of 500 years. Five hundred years is far longer than the US has even been a country. What entity can guarantee being around to provide the required water treatment for that length of time? Who will be held responsible – essentially forever -- to guarantee the water treatment required as a result of this mining activity?	PD24
12047	The Partridge and Embarrass Rivers both run in close proximity to the proposed mine site before flowing into the St. Louis River. The St. Louis River then flows into Lake Superior. Lake Superior is the largest source of fresh water in the country... Exactly how will Lake Superior water be protected from potential pollution resulting from this mining activity?	WR111
12048	No sulfide mine has ever operated without polluting its nearby waters. PolyMet says it has technology to prevent this. What is their proof for this claim and what scientific organization that is uninvolved with PolyMet's proposal can substantiate that proof?	PD26, WR023
12049	The EPA says that the hardrock (including sulfide) mining industry is the largest toxic-waste producing industry in the US. How would the DNR justify bringing this source of toxic waste to northern Minnesota?	HAZ03
12050	How will the nearby Boundary Waters wilderness area be protected from the pollution generated by this proposed mine -- including noise pollution.	N02
<b>Sender Name (Submission ID)</b> Deborah Kleese (42542)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Deborah Kleese (42542)		
6812	Data used to generate predictions must be as accurate as possible, otherwise the model has little validity (Garbage In-Garbage Out, or GIGO). As pointed out in the memos submitted by Coleman and others, there is significant lack of agreement between the low baseflow predicted by the surface water model (XPSWMM) and baseflows measured in the field and by continuous stream gauging. A major tenet of modeling is that computer simulations are discredited if phenomena have not been field tested and do not reflect actual conditions.	WR003
13490	Uncertainties related to long time delays and the future...One factor is the intrinsic delays between the period at which human activity actually creates environmental harm and the point at which the damage becomes visible.	FIN05, FIN08, WR044, WR049, WR172, WR173, WR174
15597	After reviewing the information in Chapter 8 and specifically the five letters and memos contained in the hydrology section of Appendix C of the SDEIS, I contend that the modeling assumptions are so questionable that the predictions presented in the SDEIS provide serious challenges to prediction of a critical economic component: future mitigation and remediation costs.	MERC20, WR005, WR035, WR037, WR126, WR189, WR195
15598	there is significant lack of agreement between the low baseflow predicted by the surface water model (XPSWMM) and baseflows measured in the field and by continuous stream gauging. A major tenet of modeling is that computer simulations are discredited if phenomena have not been field tested and do not reflect actual conditions.A.The great discrepancy between the modeled Partridge River baseflow level just east of the mine site. At 0.42 cubic feet per second(cfs) and actual measured baseflow, at 5.0 cfs is too great, even accounting for some assumptions made in the model.B.The same problem occurs in the GoldSim model in predicting water quality at the mine site. Goldsim did a poor job in predicting current ground and surface water quality, in some cases mis-predicting water quality by more than 400%. Since accurate prediction of cunent water quality is an easier task than predicting future water quality, given increased levels of uncertainty of input variables in the future, the Goldsim model is a bad choice for predicting future water quality, which was its purpose in the SDEIS. Poor confidence in data input in the model makes model error too great.	WR003, WR044, WR047, WR086, WR111, WR130
15600	Failure to adequately take into account environmental costs as well as benefits is a serious flaw in the economic analysis in chapter 4.	SO07
15601	There is too much uncertainty in predicting future costs: Minnesota has existed as a state for 156 years, since 1858. The origins of our present federal system date from 1776, a period less than half of the 500-period estimate of maintenance. Predicting both costs and certainties about corporate liability become problematic when such future timeframes are involved.	FIN01, FIN05
15602	It can take long periods of time -sometimes decades - for pollutants to seep into aquifers and contaminate water supplies. Gardner and Stern explain how these future consequences not only temporarily mask the severity of pollution but that remediation measures in the future may come too late to fix the damage that is already in place or require sums that are far greater than was predicted in the original cost estimates.	PD03
15603	The inability of the hydrological models to match present field conditions and the inability to simulate current ground and surface water quality makes model error too great.	WR044, WR049, WR108, WR117, WR172, WR173, WR174
15604	As Chapter 8 and Appendix C of the SDEIS point out, the models used to predict environmental risks are seriously flawed, leading to serious modeling errors that therefore underestimate potential environmental risks and then seriously underestimate future costs for remediation. The most reasonable risk management strategy at this time is to take NO ACTION.	PD03, PD04, WR189
<b>Sender Name (Submission ID)</b> Deborah Morse (54508)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Deborah Morse (54508)		
18771	I do not support PolyMet's mining project or trust the mine to give fair information about the environmental impact on the BWCAW and Rainy Lake watershed.	GEN03
<b>Sender Name (Submission ID)</b> Deborah Robinson (58142)		
19912	Hardrock mining history in other U.S. states has proven that hardrock mining companies usually declare bankruptcy long before mine site cleanup is done leaving tax payers, such as myself, paying for the long-term cleanup costs - there is no reason to believe that PolyMet would or could do better	FIN01
19998	The risk to water quality is far too great (sulfuric acid pollution for many years, perhaps centuries, into the future) for the limited number of jobs (350) that would result over such a limited time (20 years)	SO01
20008	There are many less risky ways (both financially and environmentally) to revitalize the economy of northern Minnesota without copper/nickel mining	SO01
<b>Sender Name (Submission ID)</b> Deborah Webster (28650)		
14481	My main concerns are ...sufficient funds being set aside to clean up the mess after PolyMet has stripped the earth of anything valuable. History has shown that other mining interests have simply declared bankruptcy to avoid paying clean up costs.	FIN01
14483	My main concerns are irreparable environmental damage and lack of a good plan to prevent accidents....	PD22
14484	The Federal land exchange of protected Superior National Forest land to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.	LAN01
<b>Sender Name (Submission ID)</b> Debra Cless (18117)		
3380	...and I have especially paid attention to Chapter 8 and Appendix C. And in there there are scientific studies. And the ones I found most compelling were the five letters and memos contained in the hydrology section of Appendix C.	WR189
3381	...and I would also call attention to the fact that it's PolyMet's modeling itself that has contained 200-year and 500-year outcomes. However, the model water quality at 500 years is only the point at which the water doesn't get worse. The predictions in these models create serious challenges to prediction of critical economic components.	WR037, WR038
3384	Future mitigation and remediation costs. Risk assessment cannot be separated from risk management. Therefore, critical flaws, present in the assessment of risks, will lead to critical flaws in estimations of future costs. ...the major tenet of the model is that computer simulations are discredited if the things you are looking at have not been tested and do not reflect adequate field conditions. The surface water model failed to do that.	WR003, WR056, WR071, WR086, WR091
<b>Sender Name (Submission ID)</b> Debra Frasier (22723)		
13963	Jobs? We trade all this for jobs that will last at best 20 years, and the bulk of the profits will be exported. It does not make sense to open the flood gates of permits to the dangers of this kind of mining.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Debra Frasier (22723)		
13964	But let us at least have a fair idea of the health dangers, not brush this under the rug for after the fact....Please do not proceed with this mining effort without the health assessment.	HU01
19955	Now, water is the gold. Minnesota has a chance to keep its gold....Don't sell to the short sighted job – protect the gold – we cannot sign up for a “plan” that counts on 500 years of cleanup for a job today. The math does not work.	SO01
<b>Sender Name (Submission ID)</b> Debrah Billmeier (18270)		
13891	I've never been able to find the words to adequately express the value that the wilderness has on, from as far as I can tell, everyone that has ever been there..I think if everyone could have the amazing experience that the peace and freedom nature provides, they would agree it is stupid and reckless to open mines that would endanger this rare and interesting environment.	WILD02
13892	I find the history of the Polymet/Swiss owner's mining company's practices extremely disturbing...they have never proven that they can prevent the extremely toxic waste and the sulfuric acid from entering into the surrounding environment.	PD23
13893	With fresh water being the most valuable resource, this mining project, it is like the worst location for it to be a test site. It is near Lake Superior, the largest freshwater source in the world. It seems like a pretty stupid place to just see if it is not going to do it.	WR111
<b>Sender Name (Submission ID)</b> Debsonstage (10358)		
1456	I am concerned about the sulfide mining that is proposed on the range due to the great risk of our ecology from Babbit through The Great Lakes.	WR115
<b>Sender Name (Submission ID)</b> Dee Ray (57424)		
19610	MINNESOTA NEEDS THESE JOBS AND IT WILL HELP THE STATE IMMENSELY	SO10
<b>Sender Name (Submission ID)</b> Deja White (54213)		
17659	The wilderness is a very historic place being open since 1978. What about the future generations?	WILD02
17660	Your polluting the waters with sulfuric acids making the pH go down. Which means no more fishing for the people who love to do so.	LU06
17661	Digging this mine will [contaminate] the waters. Ruining the habitat of the animals around it and in the waters. ... Building this mine will polute multiple lakes and rivers.	WR115
<b>Sender Name (Submission ID)</b> Denise Perry (58039)		
19835	Explore more options for disposal!	ALT09
<b>Sender Name (Submission ID)</b> Denise Wunderlich (31534)		
14005	Allowing sulfide mining to begin would pose a threat to wetlands, rivers, lakes and streams across the Arrowhead Region of Minnesota, including Lake Superior and the Boundary Waters Canoe Area Wilderness, as has been demonstrated by the heavy metal contamination that has polluted waters in all other places where sulfide ore mining has occurred.	WET24, WILD02, WR023, WR111

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Denise Wunderlich (31534)		
14006	This proposed project has major potential negative impacts on our region's natural resources and public health, including: risks to water quality, loss of wetlands, and harm to wildlife.	HU03, WET24
14007	Allowing PolyMet to build an open pit sulfide mine, using a Federal land exchange that includes protected Superior National Forest land is not in the public interest.	LAN01
<b>Sender Name (Submission ID)</b> Dennis Dietzel (3099)		
144	there would need to be water remediation for 200 to 500 years[...]The United States as a country is just over 200 years old, and, to my knowledge there are no corporations that have ever existed nearly that long[...] We have no idea how many resources would be required 100's of years from now to handle such a situation.	WR037
<b>Sender Name (Submission ID)</b> Dennis Dunphy (50934)		
13304	How does the DNR plan to forecast the value of a human life lost due to pollution from the mine?	FIN05
13307	How can they predict the success of technology never used in the Boundary Waters area?	PD32
16278	Poly Met has not money to do what they keep promising along with the DNR to do. Poly Met is a Canadian company with not legal or moral ties to Minnesota or the U.S. The only source of money for them is the American citizens	FIN01, FIN02, FIN04
16279	Once that water is polluted it is no good anymore. You wouldn't be able to drink it or swim in it. You wouldn't be able to fish it. So, nobody comes to Minnesota anymore to fish or camp. Because politicians set on their duffs and let it happen. The Chamber of Commerce and their buddies wanted the jobs. I can't see any future or benefit here at a Poly Met Mine.	SO01
16282	How many mines will open up [as a result of this mine being approved]?	CU04
16284	How can Poly Met open a mine when they have not money to do so?	FIN01
16285	Why would we let a Canadian mining company like Poly Met open a mine in Minnesota since they have no ties to the United States?	PD23
16286	Have they looked at the pollution of other mines and told the public the truth about the pollution from these other mines?	PD26
16287	Why has the DNR used numbers given them by Poly Met without doing their own analysis?	PER06
16288	How can they not look at the action needed when pollution takes place which it will? What are the actions that will take place when a river is polluted?	WR195
<b>Sender Name (Submission ID)</b> Dennis Falk (39977)		
6260	As I read the SDEIS and understand state statutes and regulations, this project will not meet the allowable standards for water quality. The mining activity will last perhaps 30 years, but the need to treat water to bring it to an allowable standards will likely last 200-500 years.	WR115
<b>Sender Name (Submission ID)</b> Dennis Ferche (43089)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dennis Ferche (43089)	
14802	... a ton of typical high tech equipment contains much more gold and other resource material than does several tons of related ores. I contend we need to get at reclamation in a proper manner...I propose that before any mining might be provided for that Reclamation of related resources be done and evidenced near the 100% level.	NEPA06
<b>Sender Name (Submission ID)</b>	Dennis Good (38576)	
9710	Also, any land exchange has to consist of equally valued land. But 5 out of the 6 non-federal tracts involved in the exchange have severed mineral rights. So how does this resolve all these conflicts?	LAN04
14028	the Co-lead Agencies have identified a preferred alternative and it's not the No Action Alternative.	ALT22
14030	...To say that the Underground Mining Alternative is not "economically viable" means either that the Co-lead Agencies have looked at PolyMet's books or that Polymet wrote the position paper. I think that the authors of this "position paper" should share their financial acumen with Brad Moore and other Polymet officers so that they can answer questions posed by the MN Legislature.	ALT01
14031	This section says that financial assurance would consist of "surety bonds, irrevocable letters of credit, cash and cash equivalents, trust funds and insurance policies or a combination thereof"... This is all worthless paper backed up by even more worthless paper with not a tangible asset to be seen. Polymet's stockholders and controlling interests (Glencore, Exstrata) have their exit strategies all worked out.	FIN01, FIN08
19257	Section 1.3, page 142, Purpose and Need. It is amazing how the Co-lead Agencies purpose and need statements dovetail so precisely with Poly Met's. There is no essential difference between them. This section looks and sounds as if it were written by PolyMet's lawyers and consultants. But on page 2112, in response to a comment made by the GLIFWC is this: "The Co-lead Agencies developed this language for insertion in the SDEIS." Well, how cozy is this. And there's nothing in the Co-lead Agencies statements about "public interest", "conservation of natural resources", clean air, clean water, wetlands conservation, fish and wildlife, etc. PolyMet couldn't have done a better job writing this.	NEPA02
19258	Again, keeping in mind Section 1.3, it's obvious the Co-lead Agencies have identified a preferred alternative and it's not the No Action Alternative.	ALT21
19260	First, the Co-lead Agencies prepare Purpose and Need statements that repudiate everything that they allegedly stand for and then they prepare position papers for PolyMet dismissing the Underground Mining Alternative and at the same time pretending that they have not identified a preferred alternative. To say that the Underground Mining Alternative is not "economically viable" means either that the Co-lead Agencies have looked at PolyMet's books or that Polymet wrote the position paper. I think that the authors of this " position paper" should share their financial acumen with Brad Moore and other Polymet officers so that they can answer questions posedby the MN Legislature.	ALT01
19262	All throughout the SDEIS, whenever the Land Exchange Connected Action is discussed, are statements about "quality of titles", "complexity of titles", "risk of conflict", "high risk federal lands", "low risk non-federal lands", "instant conflict", "re-unify the severed mineral estates" and" The USFS needs to resolve this fundamental conflict" etc. etc. What conflicts? What the USFS needs to do is to manage these lands in the public interest.	LAN04
19264	In Section 1.4.3 page 145: "The Forest Supervisor may complete anexchange only after a determination is made that the public interest will be well served". Also, any land exchange has to consist of equally valued land. But 4 out of the 5 non-federal tracts involved in the exchange have severed mineral rights. So how does this resolve all these conflicts? These statements are nothing but lawyerese, seemingly written by and for the benefit of Polymet and their controlling interests (Glencore, Exstrata et al).	LAN03, LAN04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dennis Good (38576)	
19267	Section 5.2.3.3.2, Wetland Mitigation, page 1220 says that: "Most of the wetlands that would be affected by the NorthMet Proposed Action would be of pre-European settlement condition and rate at the highest Floristic Quality Assessment levels for these plant communities in Minnesota. MNRAMvegetative diversity/integrity ratings would be "exceptional" for these pre-European settlement condition wetlands". This is the federal land. Elsewhere in this section is a narrative describing the efforts expended by state, county and federal entities to accommodate Polymet' s wishes. So I have a question:If I, a private citizen with little money wanted to develop property containing exceptional pre-European settlement wetlands, would state and federal "Regulatory Agencies" marshal all their resources to study, analyze, negotiate and search all over the state for suitable mitigation sites for me? I think not They even allowed Polymet to veto criteria provide by the State of Minnesota for restoring wetlands on state lands. All you need is enough money to have your wishes granted.	COE01
19271	Speaking about the No Action Alternative, under the No Action Alternative, there will be a 1% decrease in wetlands but the exceptional pre-European settlement wetlands will be preserved. Also there will be a 2% increase in deep water area-213.1 acre increase in management area allocations-228.6 acre increase in acreage in the SNF-229.2 acre increase in public water lakes-11.7 mile increase in shoreline-48.9 acre increase in wild rice beds-227.2 acre increase in GAP land cover types-213.1 acre increase in landscape ecosystems-227.2 acre increase in key habitat types-Wetland resources decrease slightly but again, the exceptional pre-European settlement wetlands will be preserved-No change in special status wildlife species-Increase of surface water featuresSo how is the Land Exchange Proposed Action in the public interest? It's not This is all about private interests and money.	ALT13, ALT14
19275	Section 3.2.2.4 of the SDEIS deals with, however briefly, "Financial Assurance". Considering the 200-500 year timelines of this project (200-500 years being the only way for the models to work), you would have thought that this section would have something more to say. This section seems to have been written by Polymet lawyers and consultants with the attitude that nobody should be concerned. The first thing to keep in mind about the state's financial assurance laws is that they are laws and rules and not enshrined in the Minnesota Constitution and therefore can be amended, altered and/or legislated away at any time and for any reason. This section says that financial assurance would consist of "surety bonds, irrevocable letters of credit, cash and cash equivalents, trust funds and insurance policies or a combination thereof."	FIN01, FIN08, FIN14
19276	There actually is a tangible asset available though: the minerals in the ground. So here's my plan: the state pays someone to do the mining but instead of the minerals winding up in China, the state stockpiles them and sells them as needed to pay the clean-up costs.	ALT13
<b>Sender Name (Submission ID)</b>	Dennis Hansen (57516)	
19504	the extra air emissions from processing can be mitigated with today's technology, it will not cost too much more.	AIR11
19505	Sulfide runoff can be reduced with proper mine contouring, wastewater treatment (even something as simple as limestone treatments).	PD34
19506	the abandoned mine pits can contoured properly and be turned into new lakes, lake homes and property tax revenue.	SO10
19507	These mines are future lakes.	LU07
19508	Even though I am a proponent of mining in northern MN, I do recognize, in the past, mining companies have taken MN's resources, siphoned the profits away from MN, declared bankruptcy and left a mess behind. Today's mining industry should come out with short term and long term plans to alleviate these concerns and gain public support.	FIN01
19509	In short, most everyone agrees that northern MN needs the industry and nobody wants mining to leave our water and habitat degraded, but with today's technology, we can turn the future abandoned mines into lakes and recreational assets.	SO10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> dennis kaleta (40838)		
10303	The very process proposed to treat the toxic wastes is in question. Doesn't it border on insanity to talk about treating mining wastes for hundreds of years?	PD03
10304	The health effects of this project, unearthing toxins and exposing these to air and water are unknown, and this has not been addressed in the EIS. ...Some of these concerns are mercury, toxic metals, arsenic, and asbestos-like fibers.	HU01
10306	A Health Impact Assessment should be required and it is surprising that this hasn't been done. We should know how many lives will be affected by these environmental toxins, and the sociological and economic costs.	HU01
10307	It is unknown how this project will affect wild rice, hence our water quality and our quality of life in Minnesota, where water is our life.	WR157
10309	How will this development affect the tenuous moose population? Thousands of acres of wetlands and moose habitat will be destroyed, with an impact that reaches beyond this immediate development. Critical Canada lynx habitat will be lost, as well.	WI01, WI02
10312	but this activity would have an impact far beyond the immediate area. One generation of good jobs is not worth twenty generations of pollution and health risks.	SO01
14584	while this development, like any of this scale and investment, would provide good-paying jobs in my part of the state, I see this mine as doing much more harm than good.	SO01
14585	It is not required in this EIS, but considering the scope of this project and the pervasive pollution it will create, the technology and costs of containing and remediation of this pollution for hundreds of years MUST be part of this permitting process.	FIN05
<b>Sender Name (Submission ID)</b> Dennis Kittock (21459)		
1449	[PolyMet] will figure out a way to leave us with a big mess.	FIN01
1450	We are also very concerned about water contamination [from the NorthMet Project].	WR195
<b>Sender Name (Submission ID)</b> DENNIS NELSON (28040)		
10995	The destruction of fish and wildlife habitat from polluted lakes and rivers, contaminated drinking water, huge cleanup costs...and "hundred-year recovery" make ANY (AND ALL) OPEN-PIT SULFIDE MINING JUST TOO 'TOXIC' AND 'HAZARDOUS' FOR THAT REGION.	SO01
16713	Lake Superior--a vast freshwater resource unique among the Great Lakes--and the millions of acres of wildlands, about 1,000 pristine lakes and streams, and around 1,500 miles of canoe routes within the Boundary Waters Canoe Area Wilderness MUST BE PROTECTED FROM THE PROPOSED OPEN-PIT SULFIDE MINE!	WILD02
16716	the federal land exchange of protected Superior National Forest land to facilitate PolyMet's destructive and polluting open-pit sulfide mine is NOT IN THE PUBLIC INTEREST--AND SHOULD NOT BE ALLOWED!	LAN01
16717	I have really serious concerns about this project's potential impacts on that region's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife species/populations (like the threatened Lynx and declining Moose populations), and the cumulative impacts from open-pit sulfide mining.	WI01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
2382	I want to assure people that there will be downstream victims of the sulfide mine runoff that will occur at PolyMet.	WR111, WR115
2384	the liners are called geo liners because they're merely packed down on dirt of some sort. The reverse osmosis procedure that's being promised won't filter out arsenic, which is... at a neutral level. Filter out another carcinogen, nickel sulfate. And these will get into our drinking water downstream and the downstream consumers of that water will be the victims	WR127, WR143
2385	And when this case comes before (inaudible) I want you to all look at the decisions being made by the court and make sure that they follow the Federal Land Management Policy Act and require all mitigation rather than what is economically beneficial to the mining companies.	LAN02
2386	I want to talk about jobs. This is isn't a job promoter, this is a job killer. First of all, we've been asked and we are currently subsidizing PolyMet to the tune of 12 percent (inaudible)	SO02
8967	Allowing only 90 days for public comment for this project is inadequate to fully vet objections to the project which PolyMet and lead agencies have allegedly spent tens of millions of dollars and more than 9 years.	NEPA07
8977	The lead agencies are being paid to provide an SDEIS that will be permitted. This payment conflicts with their permitting and monitoring responsibilities. For them the permitting of PolyMet is nothing less than employment featherbedding.	NEPA18
8978	[The agencies] have an pecuniary interest in permitting PolyMet including the promotion of future projects that will go through licensing and which they will have to monitor. The agencies are denying cumulative impacts because they want to hide their own misconduct.	NEPA18
8979	Why should we have to tolerate "evaluation criteria" that they created in the first place. Is every watershed available for contamination of "evaluation criteria."	PER06
8983	Future monitoring and the filling in of some very substantial gaps of the SDEIS will be left to these lead agencies that have contracted with PolyMet to act on their behalf. These agencies have already in the DEIS written an EIS that was rejected by the EPA.	GEN03
9009	The MDNR that told us that the DEIS would protect us is going to be the agency that will be paid to monitor compliance.They will present us with test results that are self serving.	PER06
9013	What is the deal with putting the filtrate from the mechanical treatment in "licensed landfills." This simply delays the release of toxins like thousands of tons of arsenic into the environment.	PD04
9016	Reliance on sorption or absorption of arsenic by iron compounds currently is not taking place in the tailings basin or at the mine site. Releases of arsenic and other heavy metals should be expected to lead to death and disability downstream.	WR049, WR050, WR058
9023	Present and past subsidies to PolyMet ... contribute to a violation of the National Land Management Policy Act.	PER26
9027	This SDEIS conspires to violate the Weeks Act, Clean Water Act, Clean Air Act, and a number of other laws.	PER26
9030	The failure to utilize more costly measures to mitigate environmental degradation to attain cost savings on the basis that the project cannot proceed without these cost savings also calls into question the merit of the project under the National Land Management Policy. These include inadequate liners, the failure to utilize the underground mining alternative and a number of other measures including many failed to be disclosed by the SDEIS which violates due process legal notice requirements.	PER26

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9032	The SDEIS does not require PolyMet to bolt, wire, and shotcrete the pit walls to inhibit the migration of water and pollutants in and out of the pit as was done by Kennicot at its Flambeau Mine. This would have an additional benefit if done simultaneously with mining of inhibiting the collapse of the pit wall of the type that occurred in Utah at a Kennicot Mine in 2012. It is more essential that it be done by PolyMet because of the weaker wet rock.	PD15
9034	The SDEIS simply shifts, as indicated on 5-211 and 212, toxic materials around or fails to specify actual measures to be taken.	WR128
9041	I was disappointed that there was no uniformed member of the corps of engineers... at the Duluth hearing to answer questions.	NEPA11
9049	The "cutoff wall placed into existing surficial deposits" indicated at 3-117 will be inadequate and the modeling indicating that 90% of runoff water will be collected is irrelevant. In order to collect 90% the wall would need to project below the originally placed as loose tailings fill down to bedrock, all fractures in the bedrock would need to be sealed off hold a great deal of water pressure, have the drain tile at the bottom of the wall which is standard foundation engineering, and the wall would have to be extended to the east side of the tailings basin.	PD07
9053	the iron tailings do not sequester mercury any better than any other soil. Elemental mercury is currently not leaching out of the tailings basin because lower levels have had the mercury scoured out through the introduction of sulfates running through them. Mercury is at higher than normal environmental levels in the surface areas of the tailings basin as a result of the absence of sulfates. Once the sulfates are again introduced at the top this mercury will methylate and flow out at higher levels than normal. Water discharge through the lower levels with sulfates will be redirected through the basin increasing the release of methylated mercury currently unexposed in the basin formation at these lower levels.	MERC06
9055	The " WWTF is now proposed to be upgraded to a RO process during closure to manage sulfate concentrations in the effluent " described at p. ES-24 is inadequate. It is unacceptable that toxins other than sulfates that will not be captured by RO including carcinogens Nickel Sulfate and Arsenic III shall be allowed to flow unimpeded. It is unacceptable that sulfates will be left untreated at any time... The amount of water going into the WWTF will overwhelm any treatment facility that could be built. The amount of water going into the system is dramatically understated.	PD03
9058	"Bentonite would be incorporated into the exposed outer side-slopes of the Tailings Basin as it would be built up to create a barrier that would limit oxidation. This limiting of oxygen transfer would reduce pollutants generated from the Tailings Basin." The pollutants will not be reduced. Their introduction into the environment will merely be delayed. Further more limited limitation of oxygenation is part of the formula for mercury methylation. Eventually exposure and oxygen reaction will occur.	PD08
9065	The Economic Impacts of mining only include allegedly positive impacts and fail to state the negative cumulative economic and social impacts of mining? ES-41 Since the SDEIS puts in issue the economic impact of the PoltMet project it is necessary that the authors specify the basis for and underlying assumptions made in determining the following at ES-40. "Federal, state, and local taxes would total an estimated \$80 million annually. During operations, there would be approximately \$231 million per year in direct value added through wages and rents and \$332 million per year in direct output related to the value of the extracted minerals. As with employment, these direct economic contributions would create indirect and induced contributions, estimated at \$99 million in value added and \$182 million in output."	SO04
9068	is the portion of \$231 attributable to wages based on the unlikely prospect of a union mine?	SO04
9071	It is my recollection that it was reported back in April of 2008 that the PolyMet power rate agreement would cause our power rate to increase by more than 10% or roughly 1-5 billion dollars over the 20 year life of the mine.	PD39
9076	"Post-reclamation activities would include monitoring and maintenance of reclamation and water quality until the various facility features were deemed environmentally acceptable, in a self-sustaining and stable condition." p.3-59 -environmentally acceptable to who?	PD24

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9080	["]-at applicable groundwater and surface water compliance points.["]p.3-59-compliance limited to selective points is not compliance.	PER09
9088	"would be collected and treated at the WWTF. Treated water would be pumped to the Tailings Basin at the Plant Site."p.3-53. and tailings basin water will be pumped to the WWTP(at the plant site). This process fails to allow for the discharge of any water to the environment? It makes no sense to refilter the water already filtered. This is included because there is no intent to do it.	PD04
9094	"The sludge waste would be disposed of off-site in a solid waste landfill until the Hydrometallurgical Plant became operational (see Section 3.2.2.3). When available, sludge waste would be filtered and moved by truck along the Transportation and Utility Corridor and introduced to the autoclave in the Hydrometallurgical Plant to recover metals or placed directly into the Hydrometallurgical Residue Facility (see Section 3.2.2.3.7)" P. 3-53.-It is planned that the toxins that are captured will be allowed to merely leach out in an uncontrolled environment. These toxins will leach out as a result of incomplete neutralization.	PD17, PD19
9098	["]collector-potassium amyl xanthate 3-100, 1,171 tons per year["](p.3-102)-dumped with tailings-this should not be allowed	PD08
9100	"The purpose of the alternatives process is to allow for the identification and consideration of other reasonable alternative means to achieve the project Purpose and Need and that could also improve environmental and/or socioeconomic benefits."-Does the alternatives process include releasing PolyMet from environmental regulation and financial assurance to achieve the so called project purpose and need and socioeconomic benefits?	ALT21
9103	"Economic feasibility – Each alternative was assessed as to whether it could meet economic and financial requirements to construct and operate the proposed project, including whether the cost of implementing the alternative would be economically feasible to meet the Purpose and Need."- This type of catagorical analysis systematically discredits the whole SDEIS process and violates the Federal Land Management Policy Act.	NEPA02
9122	two items from p.3-152 [regarding the cost of backfilling the west pit] violate the Federal Land Management policy act and call into question the merits of the PolyMet project.	ALT03
9182	Standards delineated as part of Forest Plan in 157-159 are superseded by Weeks Act Legislation and particularly as such mining is fundamentally inconsistent with the Forest and as such the lands exchanged are not protected by the Weeks Act and are not in effect an arms length transaction as proposed.	LAN02, LAN04
9183	Lake County Tract 2 lands are tainted by a MEPA violation in that they violate due process by not be properly identified as a connected action and are misidentified as being legally owned by PolyMet. The Colead agency come to the SDEIS with unclean hands in facilitating a violation of the law which should bring into question their impartiality.	LAN09
9184	"no off-site contamination has been documented." p. 4-17. This is misleading. What is the consent decree for.	HAZ05
9189	p. 4-24 "(d) Appropriation and use of surface water from lakes of less than 500 acres in surface area must be discouraged." -Colby Lake only has 517 acres.	WR181
9190	"Colby Lake, which is used for domestic consumption by the City of Hoyt Lakes, is designated as Classes 1B (treated with simple chlorination for domestic consumption)"-contaminating this lake puts an unfair burden on taxpayer in health care costs for the unwary water consumer of Colby Lake.	WR043
9194	the SDEIS fails to identify the state regulations that will be violated when the flow of the Partridge River is induced to flow through one or more of the mine pits and the river course is altered.	PER09

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9203	"The specific capacity tests conducted in two wells indicated that the upper portion of the Virginia Formation is more permeable than the lower portion (Barr 2007b). This is attributed to the increased amount of fractures and joints in the bedrock closer to the surface. Overall, groundwater flow within the bedrock units is thought to be primarily through fractures and other secondary porosity features because the rocks have low primary hydraulic conductivity. Near the ground surface, groundwater in the bedrock is thought to be hydraulically connected with the overlying surficial aquifers, resulting in similar flow directions (Barr 2007d). "-The rock that we are concerned about running from the fractures forming and radiating out from the Partridge River are not in the Duluth Complex, See figure p.3-35.-The SDEIS is using the Duluth Complex as the basis for non-permeability in the bedrock.	WR087
9206	P.4-45 "One exploration borehole at the Minnamax prospect encountered groundwater at a depth of 1,390 ft in the Duluth Complex that flowed for a period of 6 days, indicating the potential presence of over-pressured groundwater in the bedrock (Barr 1976)."-It won't take very many pressurized flows to drain that Partridge River, divert it's flow, and fill the mine that will need to be pumped. The Minnamax mine was so wet at all times that visitors while hearing the noise of constant pumping had to where hip boots!	WR023, WR087
9208	"Tests using wells that penetrate through the surficial zone, however, found much higher average hydraulic conductivity, with values similar to the Biwabik Formation aquifer (see Table 4.2.2-5)."- The zone where the surficial deposit meets bedrock is a primary zone of water conductivity generally in hydrology.	WR011
9211	"Tests using wells that penetrate through the surficial zone, however, found much higher average hydraulic conductivity, with values similar to the Biwabik Formation aquifer (see Table 4.2.2-5)."-this higher conductivity found conflicts with the general SDEIS claim of lack of conductivity upon which MODFLOW and GoldSimm projections were based.	WR011
9217	"Tests using wells that penetrate through the surficial zone, however, found much higher average hydraulic conductivity, with values similar to the Biwabik Formation aquifer (see Table 4.2.2-5)."-This study also reported that the upper 200 to 300 ft of the Duluth Complex formation appeared to be fractured and jointed more extensively than at greater depths, so that the upper portion of the bedrock should have greater hydraulic conductivity and thus better hydraulic connectivity than deeper bedrock. p.4-46 to 4-47.	WR011, WR012
9220	"Tests using wells that penetrate through the surficial zone, however, found much higher average hydraulic conductivity, with values similar to the Biwabik Formation aquifer (see Table 4.2.2-5)."-Blasting will exacerbate and open fractures	WR016
9221	p.4-53"The metals exceeding groundwater evaluation criteria in the surficial aquifer probably reflect natural conditions because there is no record of any historic activities at the Mine Site that could have contributed these constituents. - how about the effect of the drill exploration?"	WR203
9223	p.4-60"exceedances of arsenic and nickel water quality standards were detected.(in background water sampling)."-this is an indication that drill exploration has an environmental impacts contrary to representations made by one or more co-lead agencies or it should be a warning sign of the high levels of arsenic in the mineral deposit.	WR203
9225	p.4-60"Groundwater Use -There are no existing domestic wells between the Mine Site and the Partridge River. However, there are several MDNR water appropriation permits in effect for mine pit dewatering that affect the Mine Site, including the Northshore Mine permit (Permit 1982-2097). The permit authorizes Northshore Mining Company to withdraw up to 36,000 gpm (80 cubic ft per second [cfs]), of which a maximum of 13,000 gpm (29 cfs) can be discharged to the Partridge River, a maximum of 12,000 gpm (27 cfs) can be discharged to Langley Creek, and a maximum of 11,000 gpm (25 cfs) can be discharged to Unnamed Creek." -Is this permit being transferred? Does it have to go to the tailings basin? Are these permits an indication of what is to be expected in terms of discharges from the PolyMet pit?"	WR051

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9226	"The only consistent exceedance of water quality standards was dissolved oxygen near the headwaters of the Partridge River (SW-002,"-this fact will have serious ramifications for the mine plan when this water flows into the pit that the SDEIS plans to flood on the assumption that the flooding will suppress the re-activity through the denial of oxygen of the pit face rock and category 2,3, and 4 waste rock.	WR029
9229	p.4-86"Colby Lake is on the Minnesota 303(d) TMDL List because of mercury concentrations in fish tissue, but is not included in Minnesota's regional mercury TMDL because the mercury concentrations in the fish are considered too high to be returned to Minnesota's mercury water quality standard. p.4-86"-but this water will be used to augment stream flows around the tailings basin and increase mercury levels in the Embarrass River and concentrations of mercury downstream to Lake Superior in violation of the Great Lakes Initiative.	MERC22
9232	p.4-95"soil borings into the surficial till identified the composition as layers of clay and sand, plus cobbles and boulders that prevented recovery of an intact sample (Pint and Dehler 2009). Near the toe of the Tailings Basin, average depth to bedrock is approximately 25 ft, as reported in site boring logs (Bart"-this is the environment in which the co-lead agencies think that a below ground containment wall can capture 90% of tailings basin water-fat chance.	WR018
9249	Constituent readings for the Partridge River, Embarrass River, and especially for the tailings basin down gradient are of limited value outside of the context of contemporaneous rainfall effecting dilution. Readings for surficial Rivers and Lakes-Concentrations at low water levels are the real indicator of the health of a well, river, or reservoir lake when concentrations are highest and plant and aquatic life mortality are greatest and sometimes absolute resulting in dead rivers because once everything is killed there is no life to regenerate.	WR081
9251	The hydrology on pages 4-149 to 4-151 overstate the homogeneity of the mine site surficial aquifer and are irrelevant to what is going to happen when the homogeneous portion removed from the underlying fractured bedrock along the stream bed is removed. These fractures are the vehicle for surface drainage to the larger river fracture when the mine side fractures are breached by the mine excavation the water table will follow these fractures into the mine and because of the lower hydrolic resistance will drain more area more readily including the surficial water on the opposite side of the river. River flow will follow the path of least resistance and associated erosion and be redirected naturally through the pit area.	WR011, WR012, WR061, WR081, WR087, WR090, WR099, WR169, WR179
9253	"although a few individual samples within the Partridge River Watershed exceeded surface water quality evaluation criteria, overall in-stream water quality meets state water quality standards"...-this phenomena also invites manipulation of sampling data. For example, a high baseline could be established for a stream by sampling in low water levels and after impacted by a new project sampling would be conducted at high levels to indicate compliance when results show baseline levels.	WR109
9254	"Upper Partridge River sampling sites were indicative of a warmwater stream populated by typical warmwater species, including gamefish such as northern pike and yellow perch (see Table 4.2.6-4)." -the presence of warmwater species where trout would be expected is an indication of the warming impact that mining has on stream ecosystems and the PolyMet will exacerbate this situation as indicated for Wyman Creek:	AQ15
9256	p.4-255Compare directions and other indications for distances as given elsewhere in the SDEIS. Some distances and directions within the SDEIS appear to be inaccurate.	N01
9257	the SDEIS fails to asses additional break up of large animal migratory ability broken up by mining and mines going from southwest to northeast?	WI03
9258	"Cooperating agencies have not participated in production or endorsement of any components of the EIS or the NorthMet Project."-it doesn't appear that way especially when PolyMet is paying the agencies, has had access to the agencies to lobby the contents of the EIS for 9 years, the public is left with 90 days to respond, the agencies are allowing a EIS that is vague and ambiguous to proceed, and one EIS prepared by the cooperating agencies has already been determined to be rated by the EPA Environmentally Unsatisfactory-Inadequate Information. This SDEIS continues to be a product of the evasiveness of the last DEIS.	NEPA18

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<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9623	p.4-314(public access) &quot;There are access points to the NorthMet Project area, however, via a Forest Service road, the Partridge&quot; -the gating off of the forest service road is a Forest Service NEPA violation.	LU01
9624	p.4-315The study area for socioeconomics extends beyond the area of direct potential project effects to include all of Cook, Lake, and St. Louis counties (see Figure 4.2.10-1). -this is arbitrary because the cultural results of the socioeconomic are not fairly addressed	SO04
9625	p.4-319"represented by the loss of so many iron industry jobs"-This statement is taken out of context and in fact a complete and accurate reading of Powers is that these jobs were consolidated by the industry due to efficiencies. The whole of the report by powers should be up for consideration in order for it to provide a fair context.	SO04
9626	p.4-325-26-factors not included by Powers include tax policy which promotes mining, the MP PolyMet power utility agreement, the IRRRB which administers most of the funds indicated on p.4-332 and funnels public tax money back into mining arbitrarily, increased health care costs mining areas, displacement of agricultural jobs at the expense of mining, etc.-why is no LQ value analyzed for long term job losses in regional agriculture due to pollution from mining and at the expense of mining pollution?	SO04
9627	p4-326 -mining has displaced the potential for additional tourism. It is misleading to say they exist harmoniously	SO02
9628	p.4-340"Grand Portage's subsistence fish consumption averages 144 grams/day, five times higher than the MPCA assumed fish consumption rate of 30 grams/day. Fond du Lac's subsistence fish consumption is on average 60 grams/day, two times higher than the MPCA assumed fish consumption rate (ERM 2012). The effects of mercury bioaccumulation on subsistence activity are discussed in Section 5.2.10.2.6."-mining has a disproportionate impact on the poor and minorities.	SO02
9629	Government ownership of large tracts of land for the benefit of mining contributes to an evasion of property tax payments and contributes to homelessness by restricting access to land for residential building.	SO03
9630	p.4-349...[Scenic Integrity Objective designation for the Mine Site] is an arbitrary characterization of the mine site which has nothing on it	LU05
9631	-Furthermore the existence of an old mine site does not preclude land of park-like character adjacent to it. For example, p.4-359 Lake Vermilion State Park is 16 miles northwest of the NorthMet Project area (see Figure 4.2.12-1), on the eastern shores of Lake Vermilion adjacent to Soudan Underground Mine State Park.	WILD03
9632	p.4-361-reading hazardous waste reference on this page, nickel, arsenic, mercury, et.al. currently locked in the mineral formation meet the definition of hazardous waste.	HAZ02
9633	p.4-371"leaking and failure of LTVSMC discharge pipes."-Are these the pipes exiting at the embarass river that I have pictures of? Are they going to plug these to catch and treat 90% of the run-off the tailings basin. Plugging these will add such hydrostatic pressure to the tailings basin that it will collapse.	GT03
9634	p.4-383"To facilitate the expedited consolidation of the in-place LTVSMC tailings, wick drains would be installed within the Emergency Basin. This would reduce drainage path lengths and increase the drainage ability in the LTVSMC tailings and underlying compressed peat. "-it appears that the tailings basin had these wick drains built into it.	PD07
9635	p.4-384"she4ar strengths will increase if installed wick drains are unsuccessful."-with what consequence?	GT11
9637	p.4-395Tract 1 is an old dump site.	HAZ05

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<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9638	p.5-7" In this SDEIS, non-mechanical treatment systems are not described in detail because the NorthMet Project Proposed Action is based on mechanical treatment only."-Why isn't the mechanical treatment described then?-Why aren't modeling parameters and protocol described?	WR137, WR143
9640	p.5-8", but mass balance modeling and analog data from other natural lakes and mine pit lakes in northeastern Minnesota suggest"-not a relevant premise from which to draw a conclusion indicating the lack of foundational reliability in the modeling.	MERC04
9643	"that the mercury concentration in the West Pit Lake, the source of the only surface water discharge at the Mine Site, would stabilize at approximately 0.9 ng/L. There would also be mercury in the tailings, although about 92 percent of the mercury in the ore is predicted to remain in the ore concentrate and the mercury concentration in seepage from the Tailings Basin is expected to be less than the standard. The WWTF and the WWTP would be designed to meet the 1.3 ng/L mercury standard for its effluent."-you mean the WWTF and WWTP haven't been designed yet?	WR147
9644	"Overall, the NorthMet Project Proposed Action is predicted to increase mercury loadings in the Embarrass River, but decrease mercury loadings in the Partridge River. The net effect of these changes would be an overall reduction in mercury loadings to the downstream St. Louis River. "-you mean mercury would be reduced in the Partridge River merely because it has a mercury and sulfate emitting mine next to it?	MERC18, MERC23
9646	p.5-9What is the AWMP-list of contaminants on p.5-9 incomplete.	WR038
9659	"Natural (unaffected) groundwater concentrations for beryllium, manganese, and thallium (bedrock unit only) at the Mine Site and beryllium and manganese at the Plant Site are greater than secondary drinking water standards and/or the HRL (see Table 5.2.2-2)...-Natural/unaffected at the plant site indicate post mining impacts whereas "bedrock unit only" at the mine site indicates a sample taken somewhere in drilled/disturbed rock. This is an attorney's analysis for purpose of deception and not anyone's reasonable interpretation of natural or unaffected. Neither does the fact that these readings were found at other mine sites on the iron range make them background levels. Just because it is found in isolated disturbed areas doesn't mean that it is a natural origin.-thallium is a serious poison and indications of it should be of serious concern for proceeding with mining its use has been banned by presidential order 11643 in 1972.	WR072, WR090
9660	p.5-11-recent studies on the health effects of arsenic would dictate a stricter than 10 parts per billion standard.	PER29
9661	p.5-13"Hydrologic evaluation criteria include a comparison of proposed hydrologic changes with both existing natural conditions and historic hydrologic alterations from permitted mining practices,"-is this a comparison with this actual sulfide ore body or some arbitrarily picked iron mine.	PD27
9663	there is no MODFLOW recognition of the pipes that are draining the area around the Plant site. Is the water in these pipes considered ground water or surficial water? There is just no recognition or mention of these drainage pipes.	WR056, WR093
9681	p.5-51"chemical reactions, including mineral precipitation and surface adsorption, would limit the concentration of many contaminants in non-acidic waste-rock effluent and thus would reduce the rate at which contaminants were released; and"-precipitation would not "limit the concentration of soluble contaminants like arsenic, nickel compounds, and concurrently methylated mercury, the mercury and arsenic generally bound with the sulfide in the pyrite which allow them to become reactive quicker. Pyrite was observed to be a prominent feature at the Minnamax mine within a few miles of the NorthMet mine site.	WR038
9685	p.5-54"the rate of oxidation and constituent release was estimated from studies of seepage release measured in Dunka Mine rock, which is a nearby source of waste rock with similar chemical composition"-if Dunka Pit mine rock were similar the adjacent rock would be readily accessible and being mined for sulfide ores.	PD27

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9690	p.5-55Table 5.2.2-14 is just an attempt to confuse by using some kind of alternative terms for solubility and ground filtration.	WR201
9691	p.5-55 "four solutes are assumed to be attenuated by adsorption in the aquifer: arsenic, antimony, copper, and nickel."-for arsenic this statement fails to differentiate between Arsenic V isotope which is arsenic at a lower PH state and Arsenic III Isotope which is the same arsenic at a more neutral state. This EIS projects inconsistent scenarios in assuming a lower PH but not the type of arsenic which is exhibited at that PH level.-the modeling also fails in that it is unable to explain already existing exceedances previously noted as being observed for arsenic at the mine site.	WR025, WR058
9692	p. 5-57GoldSim as manipulated explains nothing relevant, reliable, or valid.	WR189
9693	"Table 3.2-13Sulfuric Acid 1,500 tons per yearHydrochloric Acid 3,590 tons per yearLiquid Sulfur Dioxide 1,433 tons per year...- regarding tailings geochemistry we need to start with the fact that the SDEIS is telling us that the tailings basin is going to have some potential for acid mine drainage.	WR150
9734	-The range between .12 and .14 percent sulfur according to the EIS indicates that there is some probability that the tailings themselves will produce acid mine drainage. This disregards the effect of the process water which will be added. The SDEIS can hide the treatment process from us but it appears that it is heavily reliant on some sort of ion exchange as there is an indication that large amounts of limestone will be used.	WR027, WR143
9746	The SDEIS starts by disregarding the hydrostatic effects of the headcreated by digging the pit. When the pit is dug, the large amount of water surrounding the pit will want to drain into the pit, even with the soil conditions the SDEIS claims exists above bedrock... The SDEIS tells us that the surficial water flow follows the fractures and that these fractures have associated fractures radiating out from them. This will create drainage into the pit. This drainage into the pit will be more pronounced on the north wall where this water will divert the Partridge River through these fissures and keep the north Virginia formation wall flowing with contaminants that will have to be pumped out to accommodate mining operations.	WR179
9748	-this leach-aid water will be pumped to the WWTF and run through lime to neutralize it but no system exists where the lime will not get coated with the sulfide metals that are precipitated out and fail to continue to neutralize the acidic water it is intended to neutralize. This process will lead to higher than the .06 to .14 percent Sulfur that the SDEIS indicates will be a base level for the tailings and increase the chances that at least at times the tailings basin will become acidified at a level above the .12 level indicated for acidic conditions.	WR001, WR143, WR146
9753	The reverse osmosis, even if the filters stay unplugged and a suitable disposal is found for the filtrate, is not designed or expected to filter out ions that are smaller than water molecules and highly soluble in water. Toxic heavy metals like arsenic, nickel, and methyl mercury will flow unimpeded to Lake Superior and beyond in the solution created.	WR111, WR143
9757	P.5-62The fact that the modeling failed to measure predicted, "concentrations of several solutes, including many metals."doesn't necessarily mean that the non empirical measurements were understated by the model or that there were "additional attenuation effects." It probably is more likely that the data fed into the model was invalid or that it is just a bad model. Why should we give credibility to a modeling that has no proven track record of reliability?	WR049, WR050
9759	p.5-63"NorthMet Project Proposed Action contaminant release parameters are based on a combination of laboratory tests and water quality observations at similar tailings facilities in northern Minnesota."-again, this is not a valid comparison.	WR030

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9787	-it seems a fairy tail that it could be conservatively assumed that a wall made of compacted dirt would hold back an average of 25 feet of ground water, that a trench could be dug to be tucked around boulders 25 feet down in the ground, that the ground water would flow uphill as indicated in Figure 3.2-28, or that there is even a remote chance of in any way modeling this result...and they still don't explain the pipes draining away from the tailings basin into the Embarass River or what will be done with those. I know it doesn't take 300 years for water to travel 3.25 miles through a pipe. I would say maybe an hour.	PD04
9789	p.5-77"This P90 threshold generally equates to a reasonable worst-case scenario and has been adopted for other mining NEPA documents where probabilistic modeling was used (e.g., Idaho Cobalt Project [USFS 2009b]). "-use for one solute hardly give the modeling any basis for reliability or validity, this is flimsy.	WR110, WR192
9790	p.5-79"Filtered sludge from the chemical precipitation process would be sent off site for disposal or stored at the Hydrometallurgical Residue Facility. The reject concentrate stream from the WWTP would be transported to the WWTF via rail tank cars where it would be added to the West Equalization Basin." -this procedure simply delays discharge of contaminants to the environment.	PD03
9791	p.3-115"A pond would be maintained within the Hydrometallurgical Residue Facility so that the solids in the slurry would settle out, while the majority of the liquid would be recovered by a pump system and returned to the plant for reuse."-with all the mixed materials going into the Hydrometallurgical Residue Facility how is any of it of good enough quality for reuse. Why are so many materials consumed on p.3-312 if they are capable of being recycled. This is another misleading aspect of this SDEIS.	PD18
9792	p.5-80"The WWTP would be constructed south of the Tailings Basin near the coarse crusher and would include an RO unit designed to achieve less than 9 mg/L sulfate in effluent, as well as all other applicable water quality standards."-the RO needs to be designed before permitting and if what is the sulfate level in the 10%+ that escapes the tailings basin containment. Won't it exceed the 10 parts per million sulfate standard?	WR143
9793	p.5-81What is the West Equalization Basin?	PD04
9794	p.5-82"Once the Hydrometallurgical Residue Facility is reclaimed"-This cannot be reclaimed. It will in theory (if all goes as represented by PolyMet) contain the consumables on Table 3.2-13, treatment sludge from the WWTF, ect. How does PolyMet really expect to be able to determine if this is leaking in a timely manner?	PD20
9795	WWTF will be inadequate to treat pit runoff to be discharged into the Partridge River. It will contain exceedances for mercury, carcinogenic nickel compounds, arsenic, and other toxins.	WR143
9798	"Surface runoff would be routed away from the mine pits using a combination of existing and new ditches (see Figure 5.2.2-15)." -This will cause contaminants to run into the Partridge River as 20 years of contaminant mining dust from blasting will have accumulated and be subject to erosion into these ditches and the river.	WR025, WR151, WR174, WR191
9802	p.5-83"The typical discharge rate from the WWTF is predicted to be 285 gpm."-this amount underestimates the amount of flow as it disregards the unintended redirected flow of the Partridge River through the pits. This redirected flow would be exacerbated if the north pit wall were to collapse during mining. The rock composing the pit walls is wet rock which is more brittle than dry rock(as I explained in my DEIS comments) added to this will be a shearing effect between the Virginia, Duluth, and underlying rock formations.	WR179

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<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
9807	p.5-89"distillation crystallization unit to eliminate the liquid reject stream. The moist waste solids from this system would be disposed of off site."-googling distillation crystallization does not identify any existing technology by that name. Again, solids should not be disposed of offsite where PolyMet would escape responsibility for their monitoring and release.-the pilot testing has no more foundation for reliability than the modeling.	PD03
9847	you cannot just "Despite the difference in pit depths," as indicated in the SDEIS. The difference between the height of the water which is at the surface above the PolyMet mine and the bottom of the mine is the "head." The higher the head the more the pressure pushing it down. The depth of the mine relative to the water is everything.	WR119
9848	"The proposed Category 1 Stockpile groundwater containment system, which is tied into bedrock, would minimize effects of pit drawdown on these waterbodies."-the addition of the stockpile material after the construction of the containment system is likely to be like putting a rock on a sponge and the containment system will burst like a water balloon	WR017
9851	p.5-98"1.25 inches of spilled material over a 2,000-m2 area."-the amount and effect of this spillage is underestimated as this is highly reactive rock and inadequate precautions against spillage are indicated.	WR151
9854	p.5-102"The GoldSim modeling assumes, however, that a small volume of leachate would seep through tears/flaws in the geomembrane liner, reaches the groundwater table, and follows what is referred to as the Ore Surge Pile Flow path, ultimately discharging to the Partridge River."-GoldSim modeling is only as good as the data fed into it if it works at all. Goldsim modeling is of questionable reliability as indicated in this SDEIS.	WR126
9856	However, it is agreed that tears will form in the liner and reactive water will run off and not be caught. SDEIS projections have failed to recognize pit water which will lead to more saturated ore in this and stockpile 2/3 which will cause more extensive tearing due to the additional weight and lead to more highly reactive waste water flowing untreated into the Partridge River. The solution to this problem is for PolyMet to use a more durable liner.	PD15
9858	p.21(polyMet 2013gAWMP)"Effluent concentrations used as inputs to the GoldSim water model are based on the PWQTs and the overall Project water management strategy."-PWQT stands for preliminary water quality targets-some of the assessments will be made based on "information from process equipment vendors related to hydraulic and chemical treatment performance." It is unlikely that accurate information will come from a sales pitch by a vendor which is how this SDEIS seems to be weighted.	WR147
9859	It is impossible from the SDEIS to make the modeling predictions given in pages 5-94 to 5-150 plus as the Goldsim results are only based on PolyMet targets which may or may not be achievable. Whether or not these targets are achievable needs to be part of the foundation for this SDEIS. This foundation is failing like that of the DEIS.	WR147, WR189
9862	sorption occurs in very limited conditions and sorption minerals are likely going to have to accommodate overwhelming amounts of arsenic and other metals subject to sorption. I believe the leachates from the above ranged 41 to 4,868 times the ten parts per billion standard. Even a small percentage of leachate escaping the PolyMet site will cause exceedences.	WR107, WR108, WR109
9866	pilot testing referred to fails to identify treatment conditions, assumptions made in the testing, types of arsenic oxidized or not, As V or As III, therefor it lacks notice and fails to provide a basis for comment.	WR143
9868	p.5-157-any leakage in the hydrometallurgical facility would be disastrous and irreparable once the process started. More information is needed on the types of liners proposed.	PD17

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9869	p.5-158-Again, are the pipes draining from the direction of the tailings basin being considered as ground water or surface water. These pipes would be assumed to drain at a different rate. What is the drainage rate attributable to these buried pipes?	WR093
9871	p.5-159-the ground water containment system that it is claimed will collect 100 percent of ground water needs to be further explained. Under the conditions previously described in this SDEIS that is just not remotely physically possible.	WR017
9872	p.5-160 already oxidized and precipitated nickel and arsenic would erode and flow out with water regardless of PH because of it's ionized solubility.	WR001
9875	p.5-161-humidity cell testing result are not reflective of actual conditions.	WR034
9876	If at closure there is going to be a liner/bentonite layer installed under the pond, the area under the liner will dry out under some conditions unless the pond liner is leaking. Either the pond is saturated or it is leaking oxygenated water. This is a prime condition according to DNR Bavin and Berndt studies for methylization of mercury.	WR057
9878	The thickness and effective hydraulic conductivity of the bentonite layer would be designed to achieve a pond seepage flux of 6.5 in/yr or less. - sounds precarious given different weather conditions and specificity for performance.	WR057
9879	p.5-165-because of the limited conditions in which sorption occurs the slowing of these solutes is exaggerated.-travel times lack foundation, e.g.,free flowing water does not take hundreds of years to flow.	WR058
9880	p.5-178-Colby Lake water is higher in sulfates than existing flows from the existing tributary stream water and will result in damage to downstream wild rice beds.	WR124
9883	p.5-182-seems to be telling us that the WWTP is expected not to work.	WR059
9884	p.5-183-raising the level of arsenic to 10 parts per billion from the tailings basin is unacceptable. This combined with cumulative impacts downstream, existing levels of arsenic in the St. Louis River, and the combined health effects of arsenic with other increases in other solutes is a deadly cocktail for people drinking water out of Lake Superior. Furthermore, the 10 ppb is only a PolyMet target which we cannot expect to be enforced by the agencies under the weight of special interest pressure.	WR042, WR109
9885	p.5-188Table 5.2.2-47 is misleading because it uses sulfate levels based on Barr and not DNR readings for Colby Lake water which were higher and because it includes Spring Mine Creek water	WR149
9886	p.5-201-202-mercury concentrations in reactive waste rock will be much higher. In this rock stratification will occur with sulfide erodedmercury methylizing in solution and stratifying. Results shown in lab testing will not carry over into natural conditions and are not applicable.	MERC01
9887	p.5-202"The West Pit, like seepage/head water lakes (e.g., lakes with no significant inflowing streams),"-not true/disputed. There will be Partridge River high oxygen inflow through rock fractures and sub-surficial erosion.-furthermore, it is not relevant to compare a sulfide ore body to head water lakes or a select number of pit lakes.	WR088, WR179

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9889	Not only will mercury not be sequestered in the tailings, mercury that has been sequestered by lack of contact with sulfates will be reactivated with the addition of sulfate laced tailings during the operation of the mine.... PolyMet given its methodology in disregarding the methylation of mercury and overestimation of sorption makes it's fabricated model appear to be unreliable. Given the mines footprint relative to the size of the Partridge River watershed, at best assuming the validity of the PolyMet Modeling, any benefit to filtering the small amount of background existing run-off from the footprint of the mine and surfaces to be treated would be negligible and beyond detection. The fact of the "natural runoff (with a total mercury concentration of 3.6 ng/L)" is so high merely reflects the environmental impact that exploration drilling has had on the site, contradicts PolyMet's sequestration theory	WR158
9890	p.5-208-the effect of DEIS changes including containment systems won't work as previously indicated.-the results of the Bavin and Berndt study is misrepresented. The study actually indicated that higher sulfate levels eventually dilute, travel downstream and methylate mercury.	MERC08
9891	p5-210-because the Embarrass River system is more than double the size of the Partridge River system the 3% increase in the Embarrass and the 5% increase in the Partridge will result in a net increase in mercury.	MERC23
9892	-SDEIS neglects a discussion of the augmentation water from Colby Lake which MPCA testing from 1976-2007 showed mercury of 190 ng/L (p.4-88) while the Embarrass river only has 4 ng/L (p.4-123). All the tailings basin surficial seeps show less than 4 ng/L (p.4-129). This is an increase of more than 45 times the amount of mercury being put into the Embarrass River tributaries.	WR125
9893	This 20 year Colby Lake stream augmentation would seriously contaminate fish in the Embarrass River watershed for a generation in the downstream Embarrass River and increase mercury in the Lake Superior Watershed. PolyMet will be taking current cleaner runoff from the LTV tailings basin and replacing it with much higher mercury contaminated water. Even though this water would also flow in the St. Louis River a net increase will occur because the dillution effect of the alleged cleaner tailings basin water will be removed. This is a clear violation if the Great Lakes Initiative Law.	WR125
9894	Colby Lake water is warmed by the nearby Minnesota Power Laskin plant (p4-85). The warmer water will increase the solubility of the metals in the river system and form an environment that will serve as a catalyst more conducive to oxidizing metals and methylating mercury.	WR043, WR046
10030	p.5-211 to 222-plans for future efforts should not be allowed. these efforts depend on DNR or MPCA enforcement which, based on historical enforcement of environmental protections and laws should be expected not to occur. Furthermore, the agencies paid participation in The EIS process gives them a vested interest in its success, the failure of which they will have an inherent propensity to deny.	PER06
10032	the Aitkin and Hinkley sites will not compensate for wetlands lost in the St. Louis River watershed. Wetlands need to be retained and justly deserve to be retained to provide environmental filtering effect, retention of water for flood control, et.	WET03
10033	the Zim site is already wet and serves the functions of a wetland. Calling the Zim site a wetland or flooding it with more water serves no wetland purposes. I have walked the area composing the Burns sod farm as one of their customers.	WET06
10035	none of the given [wetland mitigation] sites should be qualified as mitigation.	WET06
10036	p.5-225-a key component of the adaptive management plan should be to identify additional compensatory wetlands in advance that would actually serve an additional wetland function within the St. Louis River watershed to compensate for wetlands lost in the St. Louis River watershed.	WET02
10042	p.5-223-243-indirect wetland effects need to be assessed for evaporation resulting from loss of vegetation cover these should include ombrotrophic wetlands.	WET08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
10047	p.5-243-Analog mine sites are dissimilar to PolyMet because as previously indicated. The water table at PolyMet maintains a higher elevation and puts the water under more pressure to flow farther. Rather than restrict the area of drainage the Partridge River expands the zone because it is within the zone of bedrock fractures which the surficial water flow follows as indicated elsewhere in this SDEIS. All wetlands to the Northwest, North, and Northeast will run into the PolyMet mine pit. Drawdown will occur following the Partridge River beyond the 10,000 foot boundary until pumping from the pit augments and restores the river flow downstream of the pits.	WET08, WET10
10048	p.5-239-277-disregarded in this analysis are the cumulative effects of evaporation drawdown from defoliated ground, accelerated defoliation from drying, dusting, the toxic effects of toxic dust or watering, increase runoff from dry defoliated ground, and draw down from the mine pit on vegetation.	WET18
10050	evidence of erosion that should be expected to continue from PolyMet seepage. This eroded ground should not be expected to support a containment wall or boulders reinforcing the base of the tailings basin.	GT01, GT03
10052	p.5-291-Indirect wetland impact will occur at the plant site from evaporation caused by the trampling of vegetation.	WET08
10058	p.5-298water losses in the watersheds of the tributary creeks are underestimated because they do not account for water flowing through drainage pipes running from tailings basin drainage area to Embarrass River(draw down and intensification of contaminants). If containment system catches 90% of water there will be a shortage of more than 20%. This 20% augmentation from Colby Lake will lead to heightened levels of mercury in the first 20 years and after 40 years in addition to the more extensive augmentation occurring in years 20-40 as indicated previously in these comments in violation of the Great Lakes Initiative Law.	WR125, WR184
10063	p.5-318-State and Federal governments want mitigation on private lands because they plan to continue the degradation of wetland environments on their own lands in violation of state and federal laws.	NEPA15
10065	it is incorrect to characterize ditched peat lands as adversely effected. These lands could be utilized as productive farmlands. These lands have diminished value because of the pollution of the St. Louis River that has diminished the regional agricultural economy.	WET24
10066	mining should replace lost wetlands destroyed by mining. The intent of the law is not to make agricultural perpetually subservient to mining. Furthermore, replacing wetlands lost to mining does not functionally compare when replacing them with agricultural lands.	WET05
10067	p.5-339-discussion of reclamation is a joke. When have any of the co-lead agencies ever reclaimed a mine in Minnesota.	PD09, PD35
10126	p.5-341-the characterization of the loss of state lands of significant high biodiversity of less than one percent as not being a large percentage decline is a subjective, biased, reckless, and slippery slope characterization of these losses.	VEG02
10148	p.5-343as with all the cover systems in the project root systems from tree growth will eventually penetrate the cover and subject the underlying soils to oxidization reaction. As with any of the stated mitigation measures effects are only delayed.	VEG05
10164	the status of the Floating Marsh Marigold should be upgraded to endangered and this (PolyMet mine site) habitat protected.	VEG01
10166	draw down as indicated earlier in these comments will wipe out this 8% population of [the marsh marigold].	VEG01
10168	it needs to be determined if this is a genetically isolated variety of Marsh Marigold to avoid extinction of the species.	VEG01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
10170	the Floating Marsh Marigold is listed as endangered in Wisconsin where there is only one known population.	VEG01
10171	p.5-373-mercury effects on the sensitive wildlife listed will be intensified by the release of the high mercury Colby Lake augmentation water as indicated earlier in these comments.	WI04
10172	The presence of the mine causes the disruption of the migration corridors and ability of a variety of larger species due to the chain of Mesabi Range mining from east to west. Although this has been made a concern of natives in the area little has been done to dispel what they have learned. Moose populations are declining to critical levels. Additional arsenic deposition in the Partridge and Embarrass Rivers will damage the health of aquatic animals, and moose as aquatic grazers as arsenic is known to be absorbed into aquatic plants. Small levels of poisoning have serious effects in an already fragile life of a wild animal.	WI01, WI03, WI04
10180	exceedences of arsenic and mercury have been observed in Colby Lake water and should be expected to increase in frequency in the future and in augmentation. No consumption of any amount of walleyes, as has been the history of Colby Lake, will be recommended for fish in lakes downstream of the tailings basin in the Embarrass watershed. Warmed augmentation water from Colby Lake will kill off colder water fish along with other effects that need to be further researched.	AQ05, AQ11, AQ15
10181	second creek augmentation should also be expected to increase in warming, arsenic and mercury.	AQ05, AQ15
10183	p.5-394-under the no action alternative Colby Lake augmentation would not occur. Benefits of tourism and cleaner environment would accrue.	SO02
10350	the PolyMet project will emit more than 10 tons of HAP in amphibole fibers.	AIR03
10351	no relevant BACT demonstration is attainable.	AIR13
10353	as indicated on page 5-531 there are sources of hydrogen sulfide gas that should be added or considered alone as exceeding the 10 ton HAP or 25 ton HAP cumulative standard. Potassium amyl xanthate will be converted to some extent to hydrogen sulfide gas as indicated with a total potential conversion of 1075 tons per year with the only requirement for conversion being heat and moisture.	AIR10
10376	[F]ugitive lime dust needs to be treated as hazardous waste.	AIR10
10379	[E]ven though it will not directly emit green house gas it will indirectly generate green house gasses and contribute to hazing in the boundary waters through its usage of power generated from Minnesota Power which will exceed 100,000 tons per year. The lack of attainment in the boundary waters should require PolyMet to be treated as if it were in a non-attainment area and a general conformity determination should be required.	AIR02
10383	[T]hese sources [amphibole fobers,hydrogen sulfide gas, fugitive lime dust, greenhouse gasses] and other should qualify PolyMet as a major source emitter. Relevant, reliable, and valid modeling needs to be conducted for these sources.	AIR09
10385	"At the Mine Site, emissions were estimated for material handling sources associated with excavation, portable crushing and screening operations, blast hole drilling, use of unpaved roads, and vehicle exhaust."-it appears that modeling was based on PolyMet fabricated and self-serving data.	AIR10
10387	"Model inputs for these sources were provided by the MPCA"-these should be determined to be not credible."-the MPCA has refused to enforce the CAA and other law against mining and power companies supplying power to mining companies	AIR09

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
10388	"Per MPCA guidance, the MESOPUFF II algorithm and secondary particulate formation were not used in the PM10 increment consumption evaluation."-this breach of protocol invalidates the modeling.	AIR09
10390	"Since the two receptor grids represent two separate AOCs, the maximum concentrations are not additive"-this is a misapplication of the Clean Air Act.	AIR09
10393	p.5-395 to 417-the modeling described is meaningless without information forming a basis for the inputs and violate due process notice. Are these models based PolyMet target inputs as in the water modeling.-air quality modeling provided herein violates due process and is incomprehensible.	AIR09
10397	It has been proven that air pollutants inhibit the ability of pollinators to find food and pollinate plants ...This will have an impact on the ability of the Floating Marsh Marigold to survive as a species.	VEG07
10402	p.5-557"similar industry standards and other large tailings dams in Minnesota. "-it is improper to use this as a standard for this project as tailings basins in the past have failed by design	GT02
10403	[Tailings basin] design criteria are unconstitutionally vague and based on invalid inputs.	GT13
10405	[I]nputs used for the geotechnical stability of the tailings basin are inadequately explained and based in terms of methodology for selection, reliability or validity of selection.	GT13
10406	[T]he peat soil forming the base for the rock buttress, when subjected to hydraulic erosion from seepage or lack thereof from the containment wall will not support it. The rock buttress is expected to slide through the area of the containment wall.	GT03
10413	p.5-569 The peat earth foundation for this structure is inadequate to allow it to retain its shape and structural integrity. This will result in liner failure.	GT10, GT12
10418	p.5-575"Liquefaction analysis was not applicable and not performed because the material proposed in the constructed dams would be well-compacted and the Hydrometallurgical Residue Facility liner system would limit leakage through the dams."-these assumptions are made in error.	GT11
10420	If Lake County has approved or entered into an agreement or contract with PolyMet for the sale of lands to PolyMet in furtherance and assistance of PolyMet's NorthMet project through the environmental review process, it is prohibited from doing so by state and federal law restricting government action or approval prior to completion of the environmental review process.	LAN09
10421	St. Louis County entered into a Wetland Restoration Agreement with PolyMet dated February 7, 2006 and was subsequently sued in Minnesota District Court. District Court Judge Heather Sweetland ruled in favor of the plaintiffs , Wetlands Action Group, motion for plaintiffs summary judgment granted. Further, the court held that a contract is the same as a permit and proceeded to void the agreement and associated actions, because it was a violation of MN Rules part 4410.3100. See Wetlands Action Group, et al., Plaintiffs vs. St. Louis County, et al., Defendants April 17th, 2007. Lake County's entering into an land sale agreement with PolyMet is a discretionary contract and, thus, a permit under Minnesota rules.	LAN09
10433	The USFS must address whether the Lake County Lands are part of an illegal action and if so, remove them from consideration in PolyMet's proposed land exchange.	LAN09
10434	The zone of impact for PolyMet extends beyond the State of Minnesota to other states and foreign countries. Wisconsin will be impacted through the arsenic and heavy metal poisoning of the drinking water of Superior, WI and other Lake Superior south shore communities that obtain their drinking water from Lake Superior.	CU06

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<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
10441	Current water quality monitoring is not only compromised by a conflict of interest, it is inadequate in scope and current arsenic levels seem to be unavailable to the public in the water quality reporting that exists for Superior drinking water.	WR072
10443	The PolyMet Mine and Plant will emit toxic waters that will harm waterfowl. Of particular harm will be the Hydrometallurgical Residue Facility. Contact with hydrometallurgical pond water will likely cause imminent death to unsuspecting waterfowl protected under international treaty (Migratory Bird Treaty Act) for the benefit of Wisconsin citizens.	WI01, WI04
10469	The hazing from power generation to supply PolyMet will have negative effects on other migratory species including the Monarch Butterfly which is also protected under law.	WI01
10473	PolyMet will violate the Clean Water Act which will diminish the quality of other water uses in the State of Wisconsin along with the quality and quantity of resources such as wild rice and fish which will absorb harmful to human health heavy metals like mercury and arsenic.	MERC01, MERC03
10475	Furthermore, the PolyMet land exchange involves the disposition of a national resource objectionable to Wisconsin citizens.	CU06
10486	It is enlightening that the SDEIS allows PolyMet to phrase legal pollution discharge standards and allow them the base modeling on their own targets. Is it just coincidental that the targets coincide with legal requirements? The transparency here of the fraud attempted to be perpetrated by the SDEIS on the public is that the co-lead agency don't intend to require PolyMet to make or keep any promises.	NEPA18
10487	The co-lead agency foresee in have foreseen in advance that they would provide a vague and ambiguous SDEIS to avoid criticism when the pretext of a plan cannot be implemented.	NEPA15
10488	The SDEIS disregards the cumulative impacts of SDEIS and permitting resulting from issuing a permit based on this SDEIS.	CU11
10610	The largest impact is the dilution of standards created in the SDEIS. From here on other permit seekers will have the expectation and will probably be required to be treated the same as PolyMet.	PER35
10644	[The SDEIS] should be expected to violate the Clean Air Act, Clean Water Act, Weeks Act, NEPA, MEPA Federal Land Management Policy Act, and other statutory law. It violates Federal and State of Minnesota Constitution in terms of Equal Protection of the laws, Due Process, and other provisions.	PER26
12262	Allowing only 90 days for public comment for this project is inadequate to fully vet objections to the project which PolyMet and lead agencies have allegedly spent tens of millions of dollars and more than 9 years	NEPA07
12411	Reliance on sorption or absorption of arsenic by iron compounds currently is not taking place in the tailings basin or at the mine site. Releases of arsenic and other heavy metals should be expected to lead to death and disability downstream.	HU03
12422	Present and past subsidies to PolyMet including public historical public ownership to allow PolyMet to avoid paying past property taxes, the Minnesota policy (which exists in no other state)to server mineral interests which devalues land and passes the tax burden of land ownership and cost of government services off on non-mining supported businesses, drilling subsidies paid for by the state of Minnesota, millions of dollars of public money not fully publicly disclosed by the IRRRB granted directly to PolyMet, the failure to adequately and in advance require financial assurance and the pollution subsidy which will destroy other valuable public resources and cause other businesses and the public to subsidize PolyMet with higher health care costs, the diminution or public recreational and tourism opportunities, etc, all contribute to a violation of the National Land Management Policy Act.	FIN08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
12429	This SDEIS conspires to violate the Weeks Act, Clean Water Act, Clean Air Act, and a number of other laws.	PER26
12440	It is known given the DNR Bavin and Berndt studies that mercury from mining and power generation upon which mining is dependent contribute elemental mercury to Lake Superior and sulfates that serve to methylate that mercury and make it biologically available to fish in Lake Superior poisoning and weakening those fish.	MERC02
12443	P.3-140 "Economic feasibility - Each alternative was assessed as to whether it could meet economic and financial requirements to construct and operate the proposed project, including whether the cost of implementing the alternative would be economically feasible to meet the Purpose and Need."-This type of catagorical analysis systematically discredits the whole SDEIS process and violates the Federal Land Management Policy Act.	SO04
12450	"Colby Lake, which is used for domestic consumption by the City of Hoyt Lakes, is designated as Classes 1B (treated with simple chlorination for domestic consumption)"-contaminating this lake puts an unfair burden on taxpayer in health care costs for the unwary water consumer of Colby Lake.	SO02
17712	The arsenic standard in particular is unreasonably low as it was the standard adopted from that set by the World Health Organization at a time when detection technology was limited and as a result was set at 10 parts per billion. We should not be threatened by claims that PolyMet will meet government standard that are third world at the outset. The primary obligation of the lead agency is to protect public health and any cutting corners or exception to that rule is a violation of their social contract with individual citizens	WR110
17713	What is the deal with putting the filtrate from the mechanical treatment in "licensed landfills." This simply delays the release of toxins like thousands of tons of arsenic into the environment.	GEN01
17714	The failure to utilize more costly measures to mitigate environmental degradation to attain cost savings on the basis that the project cannot proceed without these cost savings also calls into question the merit of the project under the National Land Management Policy. These include inadequate liners, the failure to utilize the underground mining alternative and a number of other measures including many failed to be disclosed by the SDEIS which violates due process legal notice requirements.	ALT01
17715	The SDEIS does not require PolyMet to bolt, wire, and shotcrete the pit walls to inhibit the migration of water and pollutants in and out of the pit as was done by Kennicot at its Flambeau Mine. This would have an additional benefit if done simultaneously with mining of inhibiting the collapse of the pit wall of the type that occurred in Utah at a Kennicot Mine in 2012. It is more essential that it be done by PolyMet because of the weaker wet rock. ...The collapse of a pit wall would be welcomed by PolyMet as a justification for a mine expansion.... The failure of PolyMet to bolt and shotcrete pit walls does not even follow "usual and customary" mine operating standards in the area.	WR173
17716	In the DEIS the EPA issued a finding of EU-3 (Environmentally Unsatisfactory - Inadequate Information). The SDEIS simply shifts, as indicated on 5-211 and 212, toxic materials around or fails to specify actual measures to be taken. The SDEIS should be viewed in the context of the burden set by the EPA-EU-3 rating.	GEN03
17717	... the tailings basin by design will not sequester toxic materials as represented. The "cutoff wall placed into existing surficial deposits" indicated at 3-117 will be inadequate and the modeling indicating that 90%of runoff water will be collected is irrelevant. In order to collect 90% the wall would need to project below the originally placed as loose taillings fill down to bedrock, all fractures in the bedrock would need to be sealed off hold a great deal of water pressure, have the drain tile at the bottom of the wall which is standard foundation engineering, and the wall would have to be extended to the east side of the tailings basin.	PD07

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<b>Sender Name (Submission ID)</b>	Dennis Szymialis (18326)	
17718	...the iron tailings do not sequester mercury any better than any other soil. Elemental mercury is currently not leaching out of the tailings basin because lower levels have had the mercury scoured out through the introduction of sulfates running through them. Mercury is at higher than normal environmental levels in the surface areas of the tailings basin as a result of the absence of sulfates. Once the sulfates are again introduced at the top this mercury will methylate and flow out at higher levels than normal. Water discharge through the lower levels with sulfates will be redirected through the basin increasing the release of methylated mercury currently unexposed in the basin formation at these lower levels. ... The claim made on p. ES-36 that somehow the mere presence of the PolyMet mine is going to reduce mercury in the Partridge river is simply bizarre	MERC06
17719	The " WWTF is now proposed to be upgraded to a RO process during closure to manage sulfate concentrations in the effluent " described at p. ES-24 is inadequate. It is unacceptable that toxins other than sulfates that will not be captured by RO including carcinogens Nickel Sulfate and Arsenic III shall be allowed to flow unimpeded. It is unacceptable that sulfates will be left untreated at any time.	WR143, WR147
17720	The amount of water going into the WWTF will overwhelm any treatment facility that could be built. The amount of water going into the system is dramatically understated.	WR148
17721	The following statement made on page 3-4 of the SDEIS represents the type of misleading information that mining companies provide to deceive the public. "Bentonite would be incorporated into the exposed outer side-slopes of the Tailings Basin as it would be built up to create a barrier that would limit oxidation. This limiting of oxygen transfer would reduce pollutants generated from the Tailings Basin." The pollutants will not be reduced. Their introduction into the environment will merely be delayed.	WR023, WR107
17722	The Economic Impacts of mining only include allegedly positive impacts and fail to state the negative cumulative economic and social impacts of mining? ES-41	SO04
17723	... it is necessary that the authors [of the SDEIS] specify the basis for and underlying assumptions made in determining the following at ES-40. "Federal, state, and local taxes would total an estimated \$80 million annually. During operations, there would be approximately \$231 million per year in direct value added through wages and rents and \$332 million per year in direct output related to the value of the extracted minerals. As with employment, these direct economic contributions would create indirect and induced contributions, estimated at \$99 million in value added and \$182 million in output." -For Example, is the portion of \$231 attributable to wages based on the unlikely prospect of a union mine?	SO04
17724	The WWTF really is a sham which is revealed when one considers process water: "would be collected and treated at the WWTF. Treated water would be pumped to the Tailings Basin at the Plant Site."p.3-53. and tailings basin water will be pumped to the WWTP(at the plant site). This process fails to allow for the discharge of any water to the environment? It makes no sense to refilter the water already filtered.	WR143
17725	"The sludge waste would be disposed of off-site in a solid waste landfill until the Hydrometallurgical Plant became operational (see Section 3.2.2.3). When available, sludge waste would be filtered and moved by truck along the Transportation and Utility Corridor and introduced to the autoclave in the Hydrometallurgical Plant to recover metals or placed directly into the Hydrometallurgical Residue Facility (see Section 3.2.2.3.7)" P. 3-53.-It is planned that the toxins that are captured will be allowed to merely leach out in an uncontrolled environment. These toxins will leach out as a result of incomplete neutralization.	PD18
17726	Toxic to fish-collector-potassium amyl xanthate 3-100, 1,171 tons per year(p.3-102)-dumped with tailings-this should not be allowed	AQ05
17728	Standards delineated as part of Forest Plan in 157-159 are superseded by Weeks Act Legislation and particularly as such mining is fundamentally inconsistent with the Forest and as such the lands exchanged are not protected by the Weeks Act and are not in effect an arms length transaction as proposed.	LAN02

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<b>Sender Name (Submission ID)</b> Denny FitzPatrick (7377)		
737	The possibility of water contamination for hundreds of years is not worth the risk	WR128
740	We taxpayers could be left with the burden of cleanup, after Polymet is long gone.	FIN10
<b>Sender Name (Submission ID)</b> Derrick Passe (44876)		
8095	Given the existing mercury impairments and the likelihood of fish to pass between Embarrass Lake and Embarrass River, I would ask that the Polymet proposal be revised to demonstrate NO increase in mercury to any receiving water.	MERC02
<b>Sender Name (Submission ID)</b> Devin Vosdinh (54356)		
18200	Some advantages to PolyMet Mining are a better economy. And, it will provide Minnesotans with more jobs. Some disadvantages are that it could seriously damage the environment and Minnesota's amazing wild animals. Waste could run off into the mighty Mississippi.	SO10
18201	Will all the waste from the sites affect the people? Will people with seasonal and environmental allergies to dust be affected?	HU03
18202	even though the project does not take place on reservation land it still affects all Native Americans	CR01
18203	Is this the best thing for Minnesota? And, if not, how can you improve the situation so we get the maximum amount of use out of the deal?	NEPA02
18204	One of my questions is why did PolyMet pick the state Minnesota? Why did they pick Northern Minnesota? Is that where the maximum amount of ore is?	NEPA03
<b>Sender Name (Submission ID)</b> Diana (43368)		
11760	Minnesota is blessed with water. THAT is a valuable resource. Just because it is not a resource to be "owned" by a for-profit company it is not a resource to be wasted on the environmental disaster proposed by PolyMet.	SO02
<b>Sender Name (Submission ID)</b> Diana Anshakov (23151)		
13974	Northern MN and the BWCA are one of few unspoiled wilderness areas left. Please protect them for future generations to enjoy as I have.	WILD02
<b>Sender Name (Submission ID)</b> Diana Moore (57333)		
18489	I would -- I don't think that the underground mining has been examined thoroughly. It has not been looked at as a choice; an alternative. And I think that there needs to be a study for that.	ALT01
18490	I am wondering about the number of jobs that it actually does create. The number that would be at the beginning of the project, when the infrastructure and when all of it is getting actually built, and then the mining. But after the initial operations get started, is there going to be a great difference in the number of jobs? I sort of foresee that perhaps there will be a lot of jobs at first, and then when the operation gets going normally, that there will be a lot fewer jobs.	SO04

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<b>Sender Name (Submission ID)</b> Diana Moore (57333)		
18491	after it does close, or it is closed, who is going to be taking care of the land and the water that will be exposed and potentially polluting? After the closing of the plant, I am concerned about the length of time that the purification is going to be necessary. I have read that it could be up to 500 years, 200 or 500 years (indicating). And who would be responsible for this? Who would actually be accountable or who would actually take care of it? Who is taking care of it	FIN01, FIN08
18493	I am concerned about how long these mines will actually -- this mine that we are coming here tonight for would actually be operating, in the whole scheme of things.	PD30
<b>Sender Name (Submission ID)</b> Diane (3655)		
428	Sulfide mining has never been done without environmental consequences... There are no metals more precious than our water and we owe it to future generations to protect it at all costs.	WR195
429	Many of us up here depend on tourism for our livelihood. People from all over the country come here for the peace and tranquility that are found in it's woods and waters. Are their needs less important than that of large corporations that are only interested in how much money they can make?	SO02
430	Should Native Americans be asked to risk continued wild rice harvests? Wild rice requires clean water to grow, a mining accident could destroy that crop.	VEG04, WR156
11307	The PolyMet mine plan should be altered to include greater protection and replacement of wetlands.	WET24
11308	I would like the DNR to provide in greater detail and with more accuracy the length of time that water polluted by the Poly Met mine will need to be treated	WR036
11310	I would like the DNR to further analyze the effect of Polymet's plan on the Canada Lynx.	WI01
15623	Another way that PolyMet would affect the environment would be using a large amount of electricity, more than likely from dirty coal power plants in Minnesota. In keeping with Minnesota's goal to reduce carbon emissions, the PolyMet mine plan should be required to use clean energy.	ALT13, PD39
15624	The effect on human health from the PolyMet mine should be considered with a health impact assessment that would be included in the PolyMet mine plan. Many hazards could directly affect public health due to exposure to arsenic, mercury, and asbestos-like fibers. Mercury, for example, would be emitted from the plant and increase the amount of mercury in the water, in the fish, and in the diets of Minnesotans relying on fish in their diets.	HU01
15625	Minnesota's state grain, Wild Rice, is put at risk and should be better protected in the PolyMet plan. As an important resource in Minnesota, and particularly for Minnesota's native people, the rice beds downstream of the mine would be affected and water there might not meet the state's wild rice sulfate standard.	VEG04, WR157, WR159, WR162
<b>Sender Name (Submission ID)</b> Diane Anderson (45427)		
11362	I have monitored the public meetings and discussions and I am deeply concerned that the state is more interested in short term job growth over the long-term negative effects from the mine on our water quality	SO01
11366	The proposed mine plan does not keep Minnesota's water safe and clean.	WR115

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Diane Anderson (45427)		
11367	The proposed mine plan does not put safeguards in place for when things go wrong. There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin spills.	PD22
11377	Details about financial assurance a "damage deposit" the company provides are not outlined in the revised mine plan.	FIN08
15629	No mining company, especially PolyMet, could ever provide enough financial resources to clean up ANY site for hundreds of years.	FIN01
15630	Every year, 11 million gallons of polluted seepage from the tailings basin will enter groundwater and the environment without being treated. Every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater and the environment without being treated.	WR070
15631	The plan for at least 500 years of active water treatment violates Minnesota Rules (6132.3200) that call for the mine to be left maintenance free at closure.	PER04
<b>Sender Name (Submission ID)</b> Diane Beckett (25429)		
15131	If approved the mine will pollute Lake Superior, threaten our clean water and wildlands, and endanger public health for generations to come.	GEN03
<b>Sender Name (Submission ID)</b> Diane Bublitz (40081)		
6983	We need safe drinking water for human, animal and plant life. The need to do long term - 200 to 500 year- water treatment is not a realistic for us.	WR115
<b>Sender Name (Submission ID)</b> Diane Dickey (54697)		
17789	The SDEIS is chock full of inadequacies. The wetland destruction and water pollution issues alone scare my family and I. Not to mention the lack of research on airborne particulates that could contaminate our clean air with asbestos fibers and an assortment of chemicals	GEN03
17790	How have they possibly convinced us that 500 years of water treatment is a viable solution to the myriad problems that will plague our precious waters?	PD03
17792	We are not against jobs, not even against mining. We just don't understand how this has gotten so complicated. Does the earth need more Copper-Nickel etc? Sounds like we'll be exporting these metals to China. Sounds like they have plenty. Sounds like a bad deal. Are these short lived jobs so vital? What about jobs to recycle all the valuable metals we throw away?	SO06
17793	Regardless of those issues, if this does go ahead, why not take the time to explore other, perhaps safer ways of proceeding. Research different kinds of liners; look at open pit vs. underground mining. Look at an effective way to deal with dust and micro fibers that will undoubtedly enter our lungs and drinking water.	ALT01
<b>Sender Name (Submission ID)</b> Diane Dinndorf Friebe (38997)		
17658	There is not enough proof that damage will not be done permanently to the watershed here in northern MN and certainly not enough proof that Polymet will escrow enough money to take care of the problems the citizens of MN will face for the next 100, 200, several hundred years.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Diane J Peterson (54489)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Diane J Peterson (54489)		
18022	Polymet's predictions of water pollution rely on unsubstantiated assumptions that no pollution will seep from the 526-acre mine site waste rock pile into the 1 00 Mile Swamp. Polymet claims that pumps on the edge of the tailings pile will capture 99.37 percent of the polluting seepage.	WR018, WR167
18023	As reported by J. R. Kuipers et al., in Comparison of Predicted and Actual Water Quality at Hardrock Mines (2006). every time sulfide mining has been tried in a water-rich environment, it has resulted in contamination of surface and/or ground water with sulfates and toxic metals.	REF01
<b>Sender Name (Submission ID)</b> Diane Krueger-Pirnat (6437)		
1074	Polymet will help create jobs that can support a family so that our children do not have to move away as soon as they are out of High School or College. Local businesses need a boost to their bottom line...	SO10
1194	I believe that the environmental review process has been going on too long and that the supplemental draft EIS has solutions to the impacts on the air, water, or land.	NEPA16
1195	The land post-closure documentation shows that the land will be reclaimed to protect the natural resources.	PD28
<b>Sender Name (Submission ID)</b> Diane Loeffler (44962)		
8468	There is insufficient sensitivity analysis of the groundwater modeling.	WR189
<b>Sender Name (Submission ID)</b> Diane M Cole (57231)		
17178	These folks are not even from our country and will have even less interest in preserving our land and waters.	SO06
<b>Sender Name (Submission ID)</b> Diane Mason (19926)		
1516	Even though it feels like legislators and the powers that be are willing to sacrifice our water and one of the only wild areas left in the Midwest, I think it is unthinkable that it is even being considered based on the water issues at hand.	WR115
<b>Sender Name (Submission ID)</b> Diane Michel (2935)		
12323	Even if contamination abates after the estimated five or so centuries, it is obvious that the flora and fauna we now treasure will not stage a miraculous return. We need the clean waters and all which they support.	VEG06
13849	Who will profit and by how much? Polymet would appear to be yet another code word for short-term profit serving mindless greed.	FIN01, FIN10
17008	Who will profit and by how much? Polymet would appear to be yet another code word for short-term profit serving mindless greed.	SO01
<b>Sender Name (Submission ID)</b> Diane Mundt (37946)		
9961	It is the wrong project for an area so dependent on clean water throughout that watershed.	WET24
13723	Contaminating that water will harm all living things in that beautiful part of our state, including humans.	HU03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Diane Mundt (37946)		
13725	If we can make sure our state remains beautiful and healthy people will want to live and work here. That is what will keep us prosperous in the future.	SO02
<b>Sender Name (Submission ID)</b> Diane Peterson (47371)		
12389	Polymet claims that pumps on the edge of the tailings pile will capture 99.37 percent of the polluting seepage. The DNR should require solid evidence that 99.37 percent of Polymet's toxins will be prevented from contaminating our environment. As reported by J. R. Kuipers et al., in Comparison of Predicted and Actual Water Quality at Hardrock Mines (2006), every time sulfide mining has been tried in a water-rich environment, it has resulted in contamination of surface and/or ground water with sulfates and toxic metals.	WR018, WR023
<b>Sender Name (Submission ID)</b> Diane Skoog (54514)		
18744	It is federal land and to me that means that any swap should benefit at a federal level. The way I see it, [the proposed exchange] does not befeir the federal tax payer. It only leaves the federal tax payer on the hook for a new superfund site....	LAN01
<b>Sender Name (Submission ID)</b> Diane Steen-Hinderlie (52209)		
12942	First, regarding water resources, a federal website shows that there will be connections/flow to the Boundary Waters Canoe Area, which will jeopardize this invaluable state and indeed national treasure. There will be mine "acid drainage" that will leave lakes, rivers, and streams without most living creatures.	AQ08, WR011, WR113
12944	Mining pulls water from areas, so a thousand acres of wetlands at the mine site will be lost.	WET24
12946	So, secondly, wildlife is affected. Birds, fish, moose, even lynx, etc., are poisoned. Their habitat is threatened, changed beyond their evolutionary capacity to adapt.	WI01, WI02
12947	Of course there's human life threatened, with increased cancer rates, etc.	HU05
12948	Plus, the end of operations finds a devolving of responsibility from companies to the taxpayers, private to public. This happened right next door in So. Dakota, where a mine went bankrupt and the state had to request Superfund status.	FIN01
16223	No sulfide mine has ever operated without producing polluted drainage. 2/3 of attempted remedies fail.	PD26
<b>Sender Name (Submission ID)</b> Dianne Ensign (16507)		
2031	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for--information that is necessary to evaluate the environmental effects of this proposal.	FIN01
2032	... sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
2033	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dianne Rowse (58046)		
19854	focus on reclaiming copper from used electronics, homes, etc.	NEPA06
<b>Sender Name (Submission ID)</b> Dianne Swanson (16516)		
1565	We cannot sanction the continued destruction of our wetlands and waterways.	WET24
<b>Sender Name (Submission ID)</b> Dick Bottorff (38062)		
13716	The information from Polymet's own studies say that the cleanup of the water alone will take centuries. The earth will however never be the same. Polymet touts a new process that is supposedly safer. Frankly, why should we trust them? The fact remains that no project of this scope and scale can be conducted without massive environmental damage.	PD01, PD23
13717	To be contemplating this [environmentally risky project located] on the edge of our most pristine and sensitive natural wilderness is highly irresponsible...All of this beauty and splendor could be jeopardized for the sake of a few temporary jobs.	SO01
<b>Sender Name (Submission ID)</b> Dick Hock (5972)		
1957	[PolyMet] are abiding by all imposed governmental standards currently in existence.	PER34
1958	It is time to move ahead on this venture to provide the needed jobs and materials for our ever expanding society.	SO10
<b>Sender Name (Submission ID)</b> Dick Houck (2259)		
560	the safety measures that the company will take in this venture I am convinced that they are all that are available at this time and will protect the environment as much as is possible at this time.	PD28
561	...if more protective measures become known in the future they will also be used as they become available.	PER06
13689	I believe that PolyMet has outlined a very reasonable approach to this effort and should be allowed to proceed with its plan. It cannot, nor can anyone guarantee what will happen in the future, but it seems to me that all precautions are being taken that can be taken within what is known at this time.	PD28
13690	[I] am greatly enthused about the possibility for employment for the region as well as the need for the minerals that it contains	SO10
<b>Sender Name (Submission ID)</b> Dick Webber (18064)		
3178	And from what I understand, 70 percent of the rock being mined is low in sulfate and can't produce pollution.	PD28
12746	If this job is going to be monitored by the DNR, Corps of Engineers, EPA, or other agencies, then I don't see any reason why the job shouldn't go through. If it can be done safely, correctly, and everybody is on board with it getting done the right way, I really, really don't have any problem with it getting done and moving forward, as long as it is monitored.	PER34

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Dick Webber (18064)	
13250	And I'm confident that the DNR, the pollution control agency, the US Forest Service, Army Corps of Engineers, and other experts have done their research and will make sure the project does not hurt the environment.	NEPA16
<b>Sender Name (Submission ID)</b>	dickkrueger (3471)	
649	It will harm water quality and degrade wetlands for hundreds of years.	WET24, WR035
<b>Sender Name (Submission ID)</b>	Dirk and Kathryn Hanson (52588)	
15341	At a minimum - extend review period.	NEPA06
<b>Sender Name (Submission ID)</b>	Dirk Hanson (49828)	
15651	The PolyMet NorthMet sulfide mine will pollute wetlands in the Partridge River watershed of the Lake Superior Basin.	WET24
<b>Sender Name (Submission ID)</b>	Dixon Shelstad (47034)	
10933	The most contentious issues, those involving effects on the local and regional watersheds, have been addressed in the plan and mitigations appear to be in place to safeguard against potential problems.	WR190
<b>Sender Name (Submission ID)</b>	DJK Alexander (39199)	
6024	I'm concerned about the fact that the water may need treatment for two to five hundred years. Thinking back to several hundred years ago, I can't imagine much that would remain the same in such a huge time frame, so I'm dubious.	PD03
14646	I've read that other copper mining companies have simply gone out of business when it's time for cleaning up, and such costs are hard to predict, if you consider all damage there could be to the upper Minnesota biome.	FIN01
14647	I'm concerned about the environmental impact on what I consider one of the most precious resources we have in Minnesota: Clean water in abundance. Our land up north has a river running through the corner of it, a river that comes out of the Boundary Waters, passing through several lakes on the way to us.	WR111
14648	I don't think the worry for me is the Polymet project, which on first reading doesn't sound so bad. The point for me is the precedent it sets for what might follow. I would proceed very cautiously, if at all.	PER07
14651	I went to a commission hearing about all this, some years ago, and I was disappointed in the attitude shown toward small private landowners. It seemed at first blush to be a chummy, business-first club meeting there, rubber-stamping things in the public's name that had already been decided by mining enthusiasts.	NEPA18
14653	I have witnessed countless life forms using this river and its tributaries, from brook trout to baby moose to abundant insect life. There is a tremendous diversity of bird life....	WI01
14655	Torrential rain could swamp a tailings basin, overrun its banks or destroy it completely, releasing poisons into adjacent waters.	WR057, WR077, WR180, WR193

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> djordet@q.com (9472)		
940	Is a performance bond going to be required of the company? 2. How is it going to be determined that the bond will be sufficient to cover the cost of clean up?3. Can the fund be used to clean up spills or damage as they occur? If so how is the fund going to be refreshed?4. How is the bond going to be protected from government changing its use designation and reassigning the money for other projects in the state? 5. What is to keep the fund in place for 500 years or until the site is deemed safe?6. Who is going to administer the fund and be responsible for its use? 7. Is the bond going to be invested to make interest as it sits in place?8. If a bond is required, how is it going to keep pace with the rising cost of construction costs as the years go on?	FIN01, FIN05, FIN08
941	Who is going to be responsible for monitoring the site? 10. What powers will the monitors have to deal with immediate problems that will arise?11. What is going to happen to the tailings in the pond after they reach saturation of sulfates?12. How is the water seeping through the tailings and into the bedrock cracks and pores going to be monitored?13. As a suggestion, would it be safer for all concerned to build a concrete table on which the tailings could be placed so that the sulfides and sulfates could be better treated and controlled? 14 How are the emissions on the stacks going to be controlled? 15 Who is going to monitor them and be responsible to see that they are being held within the EPA limits?16. If effects are seen in the environment (effects on the water, plant and animal life) around the mine site, who will be responsible for applying corrective action and how will the effects be monitored measuring the water leaving the site and air off the stacks?	PER04
<b>Sender Name (Submission ID)</b> Don & Tess Uzelac (15775)		
833	The state and federal regulators will ensure that PolyMet’s project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
836	I’d also like to address some misinformation ... It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a long time [200-500 years]. It also shows the project will still meet water quality standards even that far out.	WR190
837	This [groundwater flow] model demonstrates that PolyMet’s plans comply with Minnesota’s laws.	WR190
838	We cannot afford to miss this job opportunity.	SO10
839	Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	NEPA16
<b>Sender Name (Submission ID)</b> Don Arnosti (11523)		
2475	I oppose the proposed land exchange for two reasons:1.If is not necessary for mining access to the ore body. Surface mining is prohibited – but underground mining could be allowed and is much less destructive to natural resources. If it’s not economic now, then the mining can wait until it is.2.No mineral rights come with the land. What will stop this exchange-game happening again?	LAN02, LAN04
<b>Sender Name (Submission ID)</b> Don Brown (43076)		
10022	The SDEIS does not seem to... adequately address issues concerning the health and safety of human resources ... What substances will be released into the air, water or otherwise and what effect will that have on human (and non-human organisms)?	HU01
10023	The DSEIS does not appear to address the effects of releasing heavy metals brands other than mercury into the environment. There appears to be no doubt that certain other heavy-metal released into the environment including but not limited to magnesium.	WR108

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Don Brown (43076)		
15337	Minnesota law is clear that clean up/reclamation after mining activity cannot be perpetual... the SDEIS does not and apparently cannot indicate when the proposed cleanup with end. Absent an end date, any proposed cleanup must be presumed to be perpetual	PER04
15338	the materials used in allegedly protecting the environment, eg., liner of the mine waste storage pit would need to last forever (perpetually) in order to protect the water resource. Similar concerns exist with respect to other processes (reverse osmosis) and materials such as containment pits. What proof is there that these processes and materials will last until cleanup is finished (perpetual)?	WR127
15339	There appears to be no real cost-benefit analysis, or cumulative effects analysis, for the total cumulative impact area – in both the Lake Superior and Rainy River Watersheds.	SO01
<b>Sender Name (Submission ID)</b> don hilligoss (38208)		
8957	I would like to mine this area and provide the State with the profit they will get from the land they have.	SO10
<b>Sender Name (Submission ID)</b> Don Janes (21690)		
10113	One many things about the SDEIS that concerns me is that underground mining and subsequent underground disposal of tailing was not considered. Even tho it may be more costly, it would help to mitigate sulfide pollution and would save many acres of wetlands from being converted into tailings ponds	ALT06, ALT10
10114	I am also concerned about effects of inevitable sulfate pollution of wild rice waters. Wild rice is a part of the culture of native Americans, and should be protected.	CR01
<b>Sender Name (Submission ID)</b> Don Klegstad (42543)		
15605	We need jobs! We need to keep working class families up here for our schools.	SO10
<b>Sender Name (Submission ID)</b> Don Markwardt (41018)		
7494	I believe the DNR has done an excellent job in evaluating the Polymet mining proposal and included restrictions and regulations to make it an environmentally safe operations.	NEPA16
<b>Sender Name (Submission ID)</b> Don Mitchell (44476)		
10634	Until mining in sulfur bearing rock complexs can be assured without degrading the water quality of this watershed the permit should not be issued.	WR111, WR195
10637	The information I have seen regarding PolyMet's proposed plan to mine precious metals from this mineral deposit which contain sulfides has not addressed all legitimate science based concerns regarding long term impacts to an aquatic resource which is both unique and irreplaceable.	WR071, WR113
10638	I am for economic development but not at the expense of this essential ecosystem.	SO01
11628	Treatment of tailings wastewater and waste piles for perpetuity at the headwaters of the Lake Superior watershed is illogical and impractical even if it was successful for the 1st time in the history of sulfide mining. The proximity to the Hudson Bay watershed to the north and the potential to devastate the headwaters of the St. Louis River make this mining project's risks unacceptable.	PD03, WR035, WR081, WR195

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Don Mitchell (44476)		
11630	New basewater groundwater flow studies indicate incorrect science to support the project were included in the PolyMet SDEIS permit. Impacts to residential wells from tailing seepage must be studied in light of the incorrect data for groundwater and surface flow rates.	WR003, WR041
11633	Sulfide mining impacts on the health of plantlife, wildlife and fisheries for subsistence lifestyles and the health of those diverse biological communities must be adequately accessed before permitting is allowed.	VEG06, WI04, WI09
11634	This project is not about jobs versus the environment. It comes down to an independant unbiased scientific assessment which assures Minnesotans and all citizens on both sides of the border in the Lake Superior watershed that our treasured irreplaceable water will not be polluted long after PolyMet is gone.	WR195
<b>Sender Name (Submission ID)</b> Don Olson (57334)		
18484	I think all we got to do is get it going. Because, you know, tailings basin, they say it is going to hurt the wildlife. Well, I've counted between 50 and 100 deer on the tailings basin a night. The moose are out there. It is all full of wildlife. And in the fall, there is thousands of geese out there. So where is the pollution coming from? You know, wildlife is smarter than we are. The tailings basin is full of walleyes. You can catch one every time you cast	WI01
18486	we have been mining this country for 100 and some years and it is basically the only industry there is. I was just thinking, you know, half of these towns wouldn't even be here and it is just hard to picture what the country would be like without the mining.	SO10
<b>Sender Name (Submission ID)</b> Don Pietrick (45271)		
11218	I strongly advocate that the decision on whether to allow hard rock mining by PolyMet be solely based on the most rigorous possible scientific analysis of potential environmental impact. The DNR should make this determination independent of political influence.	NEPA18
<b>Sender Name (Submission ID)</b> Don Vasatka (29715)		
13866	I don't see any way that the pollution from this mine can be contained for 500 years. Even if it could, we should not put the cost of this on future generations.	SO01
<b>Sender Name (Submission ID)</b> Don Yerhot (39918)		
11100	Sulfide mining has never been done in Minnesota and threatens wetlands, rivers, lakes and streams across the Arrowhead Region, including Lake Superior and the Boundary Waters Canoe Area Wilderness.	WR111
11102	Acid Mine Drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred.	WR023
11104	I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations, and cumulative impacts from mining.	WET24, WI01
11106	The Federal land exchange of protected Superior National Forests to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.	LAN01
11108	The proposed mine poses unacceptable risks to our waters and communities.	WR111, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Don Yerhot (39918)		
11110	I ask that the comment period be extended to 180 days, and I support the No Action Alternative.	NEPA07
<b>Sender Name (Submission ID)</b> Donald Armosti (18328)		
2393	It's clear that the deal being offered by this proposal is anti-clean water, anti-habitat, anti-fish	GEN01
2394	It is inconceivable that we could consider 20 years' worth of jobs... and to pass along a legacy of hundreds and hundreds of years of water treatment and the costs associated with that in the hope that we're not polluting our great-grandchildren's waters.	SO01
2396	The particular SDEIS is insufficient and should be rejected because it does not provide information on the water treatment plant or how that will be paid for...And there are no details in this SDEIS that would explain how this magic water treatment system is going to be paid for 2, 3, 400 years from now	FIN01, WR128, WR143
2397	the proposal to mitigate headwaters (inaudible), specifically the headwaters of the St. Louis River, only concerns the 912 acres that are directly impacted by either excavation or filling. However, in the document is information on more than ten square miles of additional wetlands that are going to be either partially drained or poisoned by toxic materials that flow off the railcars and off the mine site.And the proposal simply calls for monitoring, and if necessary in the future mitigation.	WET01
2475	I oppose the proposed land exchange for two reasons:1.If it is not necessary for mining access to the ore body. Surface mining is prohibited – but underground mining could be allowed and is much less destructive to natural resources. If it's not economic now, then the mining can wait until it is.2.No mineral rights come with the land. What will stop this exchange-game happening again?	LAN02, LAN04
15659	the Minnesota Department of Natural Resources added [northern goshawk (Accipiter gentilis) and Boreal Owl (Aegolius funereus)] to the list of Special Concern species in August, 2013 [which contradicts the SDEIS].	WI01
15665	Considering the specialized requirements and rarity of this species in Minnesota, the only state east of the Rockies where nesting has been confirmed, the Determination in 5.2.6.3 that, “The Proposed Action and Alternative B may impact individuals but are not likely to cause a trend to federal listing or loss of viability for boreal owl” does not acknowledge the precarious status of this species in Minnesota.	WI01
<b>Sender Name (Submission ID)</b> Donald Barstad (22173)		
3345	The economic benefit to the area is well certified by many of the comments both in the review and by public comments. (...) As a resident of the Iron Range, I look forward to this project (and future ones) providing an economic and environmental boost to the area.	SO10
3346	The land exchange and wetland are reasonable for the area intended for the project.	WET25
3347	Future effects on wildlife and plant life are not adverse to the environment of the area.	WILD03
3348	The design of the mining and plant operations are well thought out. Some new processes have covered many previous questions in regards to water and waste.	GT15
3350	The proposed Reclamation and Financial Assurance add to the feasibility of the return to “mother nature” of an acceptable result.	FIN17
<b>Sender Name (Submission ID)</b> Donald C Myntti (54745)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Donald C Myntti (54745)		
19100	I wish to point out that the rules for current mining activity are very much more stringent than those in the past. The future operations will be monitored by at least six (6) major governmental agencies to assure compliance with current existing rules and regulations.	PER34
<b>Sender Name (Submission ID)</b> Donald Chambers (21581)		
10106	We cannot afford to miss this job opportunity. Companies that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	SO10
<b>Sender Name (Submission ID)</b> Donald L Stewart (54494)		
18100	The major concern is the implications for Minnesota taxpayers of long-term costs of cleanup, mitigation and treatment 200 to 500 years in the future.	FIN01
18102	The NorthMet SDEIS seems to understate the potential harmful environmental impacts associated with this Project.	NEPA09
18103	Proponents of the Project are overstating the beneficial local economic and job creation impacts. There are presently 350 good job openings in Thief River Falls, probably a couple hundred more in the rest of Northwest Minnesota and even more in North Dakota.	SO01
18105	Approval and acceptance of the North Met SDEIS and issuance of permits to PolyMet will open the floodgates for approval of similar mining projects and farther ranging impacts into other areas of the State.	PER07
18106	PolyMet has no mining experience and PolyMet and its financial backer, Glencore, are both foreign companies which restricts legal indemnification	PD23
<b>Sender Name (Submission ID)</b> Donald Myers (48953)		
12977	It is not right to have a short term benefit for a few at the cost of a long term cost to many, including the children to multiple generations of those getting a short term gain.	SO02
<b>Sender Name (Submission ID)</b> Donald Nelson (41470)		
9329	Today I learned that there has been no evaluation of the impact on the on-site workers. Considering the toxicity of the substances, this seems a grave oversight at the start. As a minimum, there should be a detailed evaluation of the health effects of the on-site workers and their families... Health effects on the general population are also important ....	HU04
9330	I also object to not having liners for the waste pits. This is a known fractured area and we have more and more evidence that the sulfides cause problems for the plants (such as the wild rice) and animals.	PD15, WR156
14299	Health effects on the general population are also important and should be taken in to account.	HU03
<b>Sender Name (Submission ID)</b> Donald R Fosnacht (11556)		
2518	It will be incumbent on MN and federal agencies to ensure compliance to the final permits once they are agreed to by the various jurisdictions and the company, but the outline of how this action will be undertaken appears to be adequate and comprehensive to assure both a sustainable and clean water condition and provide for economic development that will benefit the local economy and region.	PER34

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Donald R Fosnacht (11556)	
2518	It will be incumbent on MN and federal agencies to ensure compliance to the final permits once they are agreed to by the various jurisdictions and the company, but the outline of how this action will be undertaken appears to be adequate and comprehensive to assure both a sustainable and clean water condition and provide for economic development that will benefit the local economy and region.	PER34
<b>Sender Name (Submission ID)</b>	Donella Kubiak (57223)	
17171	We should do a better job of re-claiming metals/minerals through recycling.	ALT09, ALT16
<b>Sender Name (Submission ID)</b>	Donna (38492)	
13577	The long-term run-off pollution threat to our unique water resources is just too great to take a chance.	WR195
13578	The possibility of hundreds of years to reclaim potential damage is a frightening prospect to pass on to future generations.	PD01
13579	[The project would create] several hundred jobs that themselves aren't for certain sustainable in the long term.	SO02
<b>Sender Name (Submission ID)</b>	Donna & Neil Berglund (10720)	
10757	How can we justify 25-30 years of mining vs. 500+ years of treatment--more like forever!!! No matter how much money we throw at cleaning the area, it will never be what it is now.	FIN10
<b>Sender Name (Submission ID)</b>	Donna and Allan Butler (50042)	
13005	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b>	Donna Anderson (17256)	
12819	I am highly skeptical that PolyMet's emission figures are credible	AIR10
12820	I am highly skeptical that PolyMet's ...monetary clean-up guarantee is calculable with any certainty, or that they wouldn't" hit and run" after five years, declare bankruptcy and leave taxpayers to clean up the mess.	FIN01, FIN05
14732	Minnesota's passage of the Legacy Act speaks volumes. Keep polluters out of our state and keep Minnesota exceptional.	PER35
<b>Sender Name (Submission ID)</b>	Donna Arbaugh (43211)	
11564	Short term employment and economic benefits have little value when compared with the spectacular ecosystem of northeastern Minnesota. The risk is much too high with too many unanswered questions.	SO01
<b>Sender Name (Submission ID)</b>	Donna Belvin (42107)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Donna Belvin (42107)		
1260	The Federal land exchange of protected Superior National Forest land to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.	LAN01
<b>Sender Name (Submission ID)</b> Donna Ceglar (16118)		
9666	This proposed mine is too close to the BWCA, the risks are too high and there are too many unanswered questions.	WILD02
11063	...I understand the importance of supporting mining operations as a source of economic stability. However, I also recognize the much bigger importance of protecting the environment of Northern Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Donna Henry (15992)		
1107	I Ask that you extend the public comment period for the proposed PolyMet Mine. The current 90 day comment period is not enough time. Due to the size, complexity and difficulty in reviewing the SDEIS - 180 days is needed to adequately review the proposal.	NEPA07
1109	The PolyMet project proposes a land exchange of 6,700 acres of federal land within the Superior National Forest. ... According to current federal law, it is illegal to strip mine land acquired under the Weeks Act for watershed protection.	LAN02
1112	The modeling done by PolyMet stopped at year 200 (at the mine site) and year 500 (at the plant site) because that was the point at which it became clear that water quality would not get worse. However, the modeled water quality at 500 years does not come close to meeting water quality standards.	PER04
1113	No back-up plan if Reverse Osmosis doesn't work for water treatment.	WR128
1115	Hardrock mining carries the potential for asbestos-like minerals to be released in water effluent or air emissions. The PolyMet environmental review process does not adequately address their effects on human health as this is already an emerging concern in northern Minnesota.	AIR03
1116	"Mitigation" for the [wetland] direct impacts will occur primarily outside of the St. Louis River/Lake Superior watershed, in an area to the south that is unlikely to support comparable ecosystems and cannot replace the lost functions to the St. Louis River system	WET03
1117	The proposed mine is harmful to wildlife, threatening home ranges of endangered lynx, wolf, as well as moose which are dramatically declining in the state.	WI01
1119	PolyMet mine could spell life or death for critical habitats and the birds that live there ... More than 300 bird species spend at least part of their year in Minnesota and three Important Bird Areas would be especially vulnerable. These include winter habitats for Great Gray Owls and breeding habitat for dozens of neotropical songbird species. At particular risk are water-dependent bird species, including Belted Kingfisher, Common Loon, Goldeneye, Red-breasted Merganser, Hooded Merganser, Common Tern, American Bittern, and Least Bittern.	WI01, WI02
1120	this mining operation would ooze toxic pollution into the region's waterways for as long as 500 years.	WR115
<b>Sender Name (Submission ID)</b> Donna Johnson (37952)		
13722	The value of our clean water far exceeds any mineral value now or in the future. Its not worth the risk.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Donna Magrina (12525)		
86	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
87	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
88	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
1666	The SDEIS proposes no mitigation for the indirect wetland impacts.	WET01
<b>Sender Name (Submission ID)</b> Donna Rautiola (42804)		
7021	The Polymet proposal is wrong in so many ways, polluting our water-ways and destroying our environment for more than 500 years; for what? 350 (possible) jobs?	SO01, WR115
<b>Sender Name (Submission ID)</b> Doran Whitledge (11639)		
3330	We have no right to damage and destroy the health and beauty of our natural world for jobs.	SO01
3330	We have no right to damage and destroy the health and beauty of our natural world for jobs.	SO01
<b>Sender Name (Submission ID)</b> Doretta Reisenweber (11612)		
2287	"compared to existing conditions"? Are measurements of the water quality being taken throughout the site area before, on a monthly basis during processing, immediately after a catastrophic weather event, and for the months of the many years following closure? If not, why not?	WR021, WR039, WR071
2288	ES 37 [Executive Summary page 37] notes that because the Boundary Waters and Waters of the Voyageurs National Park are in a different watershed they will not be affected by the NorthMet Project. No, but other mining proposals await that watershed and then that watershed would be affected, wouldn't it? Back to the NorthMet influence. The St. Louis River is, has been and certainly would be affected by NorthMet activity. When the SDEIS omits that statement, it implies all will be well. It is not well.	FIN02, FIN04
2288	ES 37 [Executive Summary page 37] notes that because the Boundary Waters and Waters of the Voyageurs National Park are in a different watershed they will not be affected by the NorthMet Project. No, but other mining proposals await that watershed and then that watershed would be affected, wouldn't it? Back to the NorthMet influence. The St. Louis River is, has been and certainly would be affected by NorthMet activity. When the SDEIS omits that statement, it implies all will be well. It is not well.	CU01, CU04
2289	ES 38 [Executive Summary Page 38] is about wetlands. I quote "Permit conditions would likely include an adaptive management plan to account for any additional effect that may be identified during annual monitoring and reporting." Annual monitoring?! As before, why not monitor water quality before, monthly during, immediately after a catastrophic weather event, and for the months of the many years following closure?	COE02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Doretta Reisenweber (11612)		
2289	ES 38 [Executive Summary Page 38] is about wetlands. I quote "Permit conditions would likely include an adaptive management plan to account for any additional effect that may be identified during annual monitoring and reporting." Annual monitoring?! As before, why not monitor water quality before, monthly during, immediately after a catastrophic weather event, and for the months of the many years following closure?	COE02
7327	Page 36 [of Executive Summary] states "Nearly all contact or process water at the NorthMet Project area would be treated at the Mine Site WWTF or Plant Site WWTP before release to the environment....." "nearly all"? What about seepage to wetlands in and around the sites? What about seepage through the fractures in the rocks? Will this be measured? If so how often? Monthly? If not, why not? Water moves.	WET24, WR070, WR090
7329	Page 36 [of Executive Summary] states "the North Met Project Proposed action is not predicted to result in any significant change to the groundwater and surface water flows when compared to existing conditions." "compared to existing conditions"? Are measurements of the water quality being taken throughout the site area before, on a monthly basis during processing, immediately after a catastrophic weather event, and for the months of the many years following closure? If not, why not?	PER35, WR004, WR071, WR139, WR185, WR195
7339	The St. Louis River is, has been and certainly would be affected by NorthMet activity. ...The St. Louis River estuary is still not cleaned up. What about the water quality in the St. Louis River watershed? It flows into Lake Superior which holds 10% of the world's precious fresh water. Can we afford to risk contaminating that water source? I think not.	WR111
7341	do not risk contaminating our water with an ill-designed experiment. Those metals will still be there, if it can ever be proven safe for the environment.	WR195
7341	do not risk contaminating our water with an ill-designed experiment. Those metals will still be there, if it can ever be proven safe for the environment.	WR195
<b>Sender Name (Submission ID)</b> Dori Arnett (54540)		
19174	Please preserve our sacred environment & this sacred place! Stop mining. Your short-term gain is not worth such costs.	SO01
<b>Sender Name (Submission ID)</b> Dorie Gallagher (11)		
347	Copper dust [from open pit mining] is a killer.	AIR11
348	No job is sacred when you are dead [due to job-related illness].	SO01
13967	80 to 90 percent of rocks moved in the PolyMet mine will be toxic. This toxicity will last from 200 to 500 years.	PD15
13968	We cannot afford to have our beautiful northern area be destroyed for the few jobs. I understand they need jobs, but jobs should have been provided, and can be provided, without destroying our northern section of Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Dorie Reisenweber (16076)		
1212	the proposed NorthMet sulfide mine could contaminate water from its site in the Duluth Complex all the way to Lake Superior which contains ten percent ( 10% ) of the world's fresh water.	WR111

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Dorie Reisenweber (16076)	
1214	Diminished water supplies due to severe drought, rising consumption due to population increases and industrial needs are becoming more common throughout Minnesota.	WR188
1215	With so many areas in Minnesota currently experiencing water shortages it makes no sense to risk contaminating groundwater in the Duluth Complex ... Consider, too, that the proposed NorthMet mining operation would use 6.2 MILLION gallons of water per day.	PER12
1216	Please consider the cumulative impact of even more sulfide mining... other still larger sulfide mines would apply for permits and argue their right to mine citing NorthMet's precedence. ... That would lead to more water contamination and groundwater draw downs and shortages in the future, wouldn't it?	CU04
1217	We must protect and save what water remains and use it for human beings, not for industry.	WR195
1218	If NorthMet were permitted, contaminated surface drainage from NorthMet would run into the Partridge River, then into the St. Louis River and from there into Lake Superior.	WR111
1221	Sulfide mining, even in dry land areas has caused ground and surface water contamination lasting for hundreds of years. The Duluth Complex is a water- rich area, thus it is even more susceptible to water contamination.	WR115
1222	Are the people, much less regulatory agencies, guaranteed that someone will be around to treat the contamination virtually forever? I know of no such assurance or guarantee.	PER06
1223	11 (eleven) million gallons of contaminated seepage from the tailings basin would enter the groundwater each year, and another 5 (five) million gallons from the mine site would seep untreated into the groundwater each year. What of the impact of the millions of gallons of untreated contaminant that would enter the ground water on a yearly basis accumulating throughout the years?	WR107, WR108
1226	Given the large scale of the proposed NorthMet operation and the water-rich environment of the Duluth Complex...massive contamination of groundwater and surface waters could be expected, if the engineering were flawed or, if any unforeseen accident or disaster were to occur.	WR128, WR129
1227	Fractures are found at the NorthMet mine and the plant site which would transport contamination. The mining blasts themselves would break up hundreds of tons of rock every two or three days, adding to the number of fractures through which contaminated water would be able to flow.	WR011, WR012, WR016
1229	Based on the above MERA [116B.01] and these comments, I consider that it is not in the public interest to endanger water vital to present or future generations...I urge the regulatory agencies to reject the NorthMet SDEIS and to refuse any permits submitted by the NorthMet sulfide mining company.	PER35
2026	I urge the regulatory agencies to please reject the NorthMet SDEIS and deny any permits which could harm Minnesota's water quality and supply for many future generations.	PER35
10038	Improve monitoring practices.....to ensure maintaining strict water quality standards. Monitoring wetlands for contamination requires: monitoring stations be located in areas where leaks and run-off might be expected, monitoring stations be located at closer and more frequent intervals, than the SDEIS proposes; monitoring of all stations to be MONTHLY at least, not merely, as the SDEIS says, 'at least annually;' enough, technically-trained regulatory AGENCY staff, not company staff, to do the monitoring job.	PER06

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dorie Reisenweber (16076)		
10049	The state should require of any mining company(ies) a contingency fund available during any of the mine’s various operations. This contingency fund would be in addition to the financial assurances already mandated upon closure, as mentioned in the SDEIS. The contingency fund should be sufficient to pay for all monitoring expenses, for whatever technical training is needed for monitoring staff, for any remediation as agreed upon between the affected residents, mining employees and the regulatory agencies, and for mining-incurred medical expenses of the mining or regulatory agency employees or area residents, as well as for emergency events whether due to natural disaster or mining leaks, mining accidents or any mining situation which poses harm to people and the environment.	FIN05, FIN07, FIN11
10056	Contingency funds to pay for the monitoring staff should be assessed to the mining company(ies) and placed in the state’s coffers before any such mining were permitted. Furthermore, thpse monies should be obligated to cover the entire cost of monitoring and therefore subject to increased funding levels as determined by the monitoring agency(ies).	FIN11
10057	Monitoring and reporting on a) city and residential wells in the Duluth Complex and b) of drainage areas surrouding the mine's entire working and storage areas for contaminants which result from sulfide mining (such as arsenic, asbestos-like fibers, cadmium, lead, magnesium, mercury, and nickel, and to name only a few). These should be required to be monitored and reported on a monthly basis by a sufficient number of properly trained STATE AGENCY staff.	WR039
10061	The health of mine employees, as well as the health of residents within a pre-determined area of the mining facilities should be monitored at least once before mining begins...The cost of any ailments or illnesses attributable to the effects of mining should be borne by the mining company(ies) through a state-held contingency fund	HU04
10673	I write to urge an extension of the public comment period for the NorthMet SDEIS.	NEPA07
10676	[T]he SDEIS took over two years of work by agencies and experts. Lay people need time to analyze such a lengthy document dealing with a project which the SDEIS indicates could require five hundred (500) years water treatment. The project’s many impacts to water, air and life in northeastern Minnesota demand serious, thoughtful and objective analysis by both the public and by government agencies.	NEPA07
14464	The cost of any ailments or illnesses attributable to the effects of mining should be borne by the mining company(ies) through a state-held contingency fund provided for by the mining company(ies) involved.	FIN01
15912	No one wants a project that dumps toxic tailings into our waters. Please reject the NorthMet SDEIS.	WR195
15913	Surely...you would think Minnesota’s environmental laws will protect the water, but no. Permit after permit and variance after variance have been granted to taconite mines which continue to pollute raising sulfide, manganese and mercury levels above the accepted standards. And that is before sulfide mining has been allowed to start up.	PER06
<b>Sender Name (Submission ID)</b> Doris Bandel (41790)		
3276	My family has a cabin in Voyagers National Park. The last 4 generations of our family have joyously spent time at the cabin. I want the next 4 generations to have the same envirmment available to them.	LU06
13972	I am particularly alarmed by the possibility of sulfide mining in Minnesota. Although the PolyMet mine watershed drains into Lake Superior, the Twin Metals Mine would drain into Voyager National Park.	WILD02
<b>Sender Name (Submission ID)</b> Doris Lawson Gerdes (36778)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Doris Lawson Gerdes (36778)	
7816	Fragmentation of directly and indirectly affected wetlands was not adequately analyzed. The SDEIS treatment of wetland mitigation and wetland monitoring is also inadequate. It does not specify the type, location, and acreages of replacement wetlands, which should be located within the St.Louis River watershed and provide equivalent wetland values and ecosystem services. To adequately evaluate wetland composition, structure and function, affected wetlands should be classified to MN DNR Native Plant Community (NPC) Classification System type.	WET02, WET03, WET07, WET21
7819	There is no mitigation for the 698.2 acres of imperiled or vulnerable native plant communities destroyed as a result of the proposed project. Replacement acres for these native plant communities should be within the same watershed. Reclamation objectives that simply state “rapidly establish [vegetation]” are not adequate, and do not address the restoration of native plant communities. Furthermore, it is not possible to restore areas to a “natural state” when the area is now underlain with toxic waste rock.	VEG02, VEG05
7825	The SDEIS no action alternative should be selected because the proposed project will require long-term water treatment and monitoring. MN Rule 6132.3200 requires that, to receive a permit to mine, the permittee must be able to close the mine in such a way that it is, among other things, maintenance free. Furthermore, it unrealistic to expect a commitment of centuries of water treatment and monitoring.	PER04
7837	The SDEIS fails to adequately disclose the environmental consequences of the proposed project on biodiversity and ecosystem function. The SDEIS inappropriately analyzes the effects on Minnesota DNR Sites of Biodiversity Significance and fails to analyze the effects of the project on other biodiversity areas within the Laurentian Uplands subsection and the St. Louis River watershed. Fragmentation of biodiversity areas directly or indirectly affected by the proposed project was also not analyzed.	VEG02, WI02
7843	Environmental consequences of the proposed project on many of the biodiversity areas, even those close to the proposed project area were not analyzed (most notably the MN DNR Headwaters Site, the Sand Lake Peatlands Scientific and Natural Area, and the USFS Big Lake candidateResearch Natural Area).	VEG02
7855	The UMD economic impact analysis (EIA) used by the SDEIS to determine the socio- economic consequences of the proposed project misapplies standard EIA methodology, resulting in an economic analysis of the proposed project that is flawed from the outset. A socio- economic analysis that includes an aggregation of economic, environmental and community measures that support a healthy, sustainable economy (such as those described in the Minnesota Genuine Progress Indicator) is needed to adequately analyze the socio-economic costs and benefits of the proposed project. The EIA (and therefore the SDEIS) grossly exaggerates the short-term impacts, provides no comparison to potential employment impacts that might result from investments in other forms of economic development, and fails to compare the modeled short-term impacts in the context of associated long and short-term negative environmental, economic and fiscal costs of the proposed project and other non-ferrous mining proposals in the region.	SO04
8102	The proposed project is located within lands covered by 1854 Treaty with northeastern Minnesota Ojibwe people. The 1854 Treaty requires the federal government to protect tribal rights to hunt, fish and gather wild rice. The SDEIS fails to adequately address the environmental, cultural and economic costs of the proposed project on native peoples based on these treaty rights.	CR01
8123	Information presented on existing fractures, and the potential for increased fracturing that may result from continuous blasting at depth, is incomplete or non-existent. The proximity of the proposed project, especially the north side of the mine site, to the Laurentian Divide and the potential for leakage of polluted groundwater into the Rainy River Headwaters watershed was not addressed in the SDEIS.	WR010, WR012, WR016, WR071, WR085
8129	it is also critical to understanding the effects of the proposed project, for the SDEIS to include groundwater transport analysis on mercury.	MERC11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Doris Lawson Gerdes (36778)	
8149	The SDEIS fails to adequately analyze the direct and indirect effects of the proposed project on the ability of the Superior National Forest (SNF) to meet federal mandates for the management of National Forest Lands. Therefore, the SNF must conclude that the proposed project does not serve the public interest.	LAN01, WILD01
8163	The SDEIS is flawed in that it fails to adequately address financial assurance requirements. Because of the enormous costs involved and an industry track record where taxpayers are left with the costs of clean up, it is critical that the SDEIS elucidate the terms of financial assurance requirements and provide a vetted estimate of the cost. Financial assurance analysis should be thorough and adjusted for inflation over time. Who will be liable should Polymet become insolvent? How will financial assurances remain viable for 500 or years or more?	FIN01, FIN05, FIN08, FIN10
8176	The SDEIS fails to adequately address the need (and cost to the taxpayers) for specialized disaster-response strategies associated with the failure of containment or treatment facilities due to unforeseen events and “unanticipated liabilities”.	FIN01, FIN10, PD22, PER03
8187	The effects of extreme weather events (fires, floods, drought) occurring with increasing frequency and intensity, should be factored into hydrologic models, pollution predictions, pollution transport models, treatment plans and monitoring.	WR180, WR189
8190	The SDEIS failed to adequately incorporate the effects of climate change in their analyses of the environmental consequences of the proposed project...The SDEIS failed to adequately address the carbon footprint of the proposed project and its’ effects on the states’ carbon budget.	AIR01
8198	The length of time that the public has to review the SDEIS is insufficient. An additional 90 days would allow the public a reasonable comment period.	NEPA07
12665	Forest Stewardship Council standards require the identification of high conservation value forest for the certification of managed forest lands in Minnesota.	VEG03
12669	misapplies standard EIA methodology...Hjerpe, Evan and Spencer Phillips 2013. A Review of “The economic impact of ferrous and non-ferrous mining on the State of Minnesota and the Arrowhead Region.” <a href="http://www.nmworg.org/wp-content/uploads/2013/08/Phillips_Hjerpe_UMD_Review_FINAL_2013_12_30.pdf">http://www.nmworg.org/wp-content/uploads/2013/08/Phillips_Hjerpe_UMD_Review_FINAL_2013_12_30.pdf</a>	REF01
12674	The analysis is also inadequate.... Minnesota Planning – Environmental Quality Board, 2000. Smart Signals: An Assessment of Progress Indicators. <a href="http://www.gda.state.mn.us/pdf/2000/eqb/measure.pdf">http://www.gda.state.mn.us/pdf/2000/eqb/measure.pdf</a>	REF01
12787	The proposed project lies within the proclamation boundaries of the Superior National Forest (SNF). Whereas, the Weeks Act of March 1, 1911 does not allow open-pit mining on National Forest Lands in order to protect the watersheds of navigable streams, it stands to reason that the proposed project should be prohibited within the proclamation boundaries of the SNF.	LAN02
12789	The land exchange does not mitigate the fact that the proposed project still lies within the SNF and does not relieve the Forest Service of their responsibilities for “the protection of the watersheds of navigable streams” mandated by the Weeks Act [PUBLIC-NO. 435.] [H. R. 11798]. These land exchanges render the SNF incapable of meeting not only this mandate but many of the management obligations set forth in the SNF Land and Resource Management Plan (2004).	LAN02
12869	The destruction and degradation of wetlands proposed by the project will present unacceptable risks to water quality and ecosystem services in the headwaters region of the St. Louis River watershed. Therefore, a USACE Section 404 Wetland Destruction Permit should not be issued for the proposed project.	WET24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Doris Lawson Gerdes (36778)		
14479	In addition to those wetlands directly lost by the proposed project, the SDEIS should mitigate for all wetlands that will be lost or degraded by the indirect effects of groundwater drawdown, dust deposition, ore spillage during transport, stockpile leakage, etc.	WET24
14497	Furthermore, the SDEIS fails to disclose and factor into the analysis the losses associated with the disparities in tax revenue from the erosion of the mining production tax (especially relative to the value of ore) and production tax “rebates” back to the mining industry. Lost revenue could be calculated by updating the production tax, applying a minimum tax on the value of the ore and/or collecting an income tax on corporate profits on par with other countries. The analysis also mixes apples and oranges by aggregating predicted economic benefits from ferrous and non-ferrous mining.	SO05
16524	Direct loss of wetlands at the mine and processing site, degradation and loss wetlands along the waste rock transportation route, and hydrologic and water quality changes downstream from the project area would result in unacceptable losses of the ecosystem services that these wetlands provide, such as water regulation, water purification and nutrient cycling. Therefore, a USACE Section 404 Wetland Destruction Permit should not be issued for the proposed project.	COE03
16526	Wetland mitigation plans and vegetation rehabilitation plans are grossly inadequate.	WET01, WET04
16533	The information presented in the SDEIS is inadequate to address the environmental effects of the proposed project on groundwater. Groundwater mapping is incomplete for this part of the state. The proximity of the proposed project, especially the north side of the mine site, to the Laurentian Divide and the potential for leakage of polluted groundwater into the Rainy River Headwaters watershed was not addressed in the SDEIS.	WR061, WR080, WR087, WR099, WR135, WR168, WR169
<b>Sender Name (Submission ID)</b> Dorothea Diver (11355)		
264	To issue a go-ahead permit to a mining plan that so endangers - for 100s of years - our most precious resource - clean water - is an abdication or your department's mission to protect and do no harm to our environment.	WR115, WR195
1634	... the SDEIS as proposed by the DNR is very inadequate in failing to offer a plan that leaves the site clean and maintenance free.	NEPA09
1635	In addition, the water modeling that involves the ongoing protection of the Partridge and Embarrass Rivers has been recently proven very off - by a factor of four in some cases.	WR003
12712	I would ask that there be more studies and surveys done regarding the impact upon native plant communities identified by the MN Biological Survey by the proposed Polymet mine.	VEG02
12716	Today I want to point out that this mining plan completely disregards Minnesota Rules (6132.3200) that require the mine to be left maintenance free at closure of the plant.	PER04
12718	The SDEIS will require at least 500 years of active water treatment.	PD03
12719	The results of the studies showing the need for unimaginably long monitoring – clearly beyond the reasonable life of Polymet – highlights the unfeasibility of this kind of mining within Minnesota’s clean water standards.	PER35, WR035
12720	I don’t see provisions in the SDEIS for worker safety regarding the inevitable massive airborne contamination and dust emissions during the proposed Polymet mining operation. There is inadequate information concerning the long term effects of these contaminants on workers or the community. I ask that more studies be done in this regard as well as more safety precautions put in place for workers.	AIR09

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dorothea Diver (11355)		
12754	You cannot simply base the swap on acreage exchange – each wetland is complex in their functions within a specific site and I see no analysis offered which gives us adequate information about any of the specific wetlands sites involved in the ‘swap.’	WET14
12756	Plus, there has been no mapping of the water flowage on the entire mining area – what the contaminated water will actually do underground is at present an unknown.	WR135
12757	You cannot simply base the swap on acreage exchange – each wetland is complex in their functions within a specific site and I see no analysis offered which gives us adequate information about any of the specific wetlands sites involved in the ‘swap.’	WET14
12758	Plus, there has been no mapping of the water flowage on the entire mining area – what the contaminated water will actually do underground is at present an unknown.	WR135
12759	And since this site drains into streams that eventually flow into the St. Louis River – Which has only recently had major detoxification issues – and then to the impt. Body of Lake Superior – we should not move ahead with this project and land swap until more scientific information is available.	NEPA09
14426	The SDEIS is insufficient and should not be approved....The SDEIS must be redone to analyze the alternative of a completely lined tailings basin, which should avoid wetlands or streams.	ALT10
14427	These tailings are toxic as admitted and will be located next to the old LTV dump, which was built to admit leaking. Since there is no liner under the proposed Polymet tailings basin, we know that there will be leakage there as well – into ground water sources and streams.	WR117, WR133
14534	I call this plan economically unsound because Polymet has entirely skirted the issue of how the centuries-long “clean-up” (which they admit to) will be funded. The plan is entirely inadequate on this point and it will surely fall on the taxpayers’ shoulders. This is not in the public interest.	FIN10
14535	The SDEIS wholly omits specific plans for inevitable accidents or catastrophic crises. Other industries dealing with hazardous materials are required to submit such plans. Why not Polymet? Their residues are definitely hazardous – hence the 500 year necessity of monitoring water associated with this mine. It seems to be a completely cavalier attitude of Polymet on behalf of safety of both workers and the environment.	PD22, PD29
19194	It is so important that we get the standards for the projected Polymet undertaking set at levels that will set the bar for many mining projects which will surely follow. I therefore ask that the 18 areas cited as “Major Differences of Opinion” by the tribal co-operating agencies be addressed and corrected in the final EIS.	CR05, CR06
<b>Sender Name (Submission ID)</b> Dorothy Dolezal (50062)		
13017	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won’t end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Dorothy Nordness (40640)		
6274	I have often visited northeast Minnesota for its beauty, its clean waters, and the life-changing experience of canoeing in the Boundary Waters...I am very concerned that this area be protected from any intrusion that could potentially disrupt this pristine area.	WILD02
6278	The long-term implications of PolyMet mining operation's water protection seem impossible to actually fulfill for the duration needed to assure that the water is not polluted with harmful chemicals.	FIN08, WR129, WR195

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Doug Buell (23304)		
14894	The fact that PolyMet will reuse an existing plant and brownfield site in an area of the state that has seen continuous mining and processing for over 100 years is a positive in that a minimum of "new lands" will be disturbed.	PD28
14895	This mine and processing operation will provide well paying and full time employment, that is at a premium. I do not believe that "tourism" jobs will be adversely affect. For the most part unaffected jobs are minimum wage and part time. Those are jobs for students and second incomes and are not family supporting.	SO10
<b>Sender Name (Submission ID)</b> Doug Christy (57338)		
18441	we have, you know, the best and the brightest right here in Minnesota on our staff, as far as the DNR, the Forest Service, the Corps of Engineers, the University of Minnesota that have been studying this. And if people don't trust the information we are getting from them, who will they ever trust?	NEPA16
18442	People -- people have to work to live up here and this is one way they can do it. We need the jobs.	SO10
<b>Sender Name (Submission ID)</b> Doug Connell (18370)		
14675	I just want to make a point that the economic impact of this project is not restricted to the Iron Range. It affects all of Minnesota. It affects the region. The jobs that are created directly and indirectly are going to benefit the whole region.	SO10
<b>Sender Name (Submission ID)</b> Doug Halverson (40524)		
14264	I believe Polymet is doing all the right things to make their operation environmentally safe. I am very confident that there will be no pollution of any streams, rivers or lakes including the Boundary Waters.	PD28
14265	Even though some people feel that copper-nickel mining pollutes lakes and streams, I beg to differ as I grew up in Coniston, Ontario which is in the Sudbury Nickel belt. Even with 3 smelters running in the 1960's and 1970's there were no lakes or streams or rivers that were polluted by mining and smelting sulphide ores	WR190
<b>Sender Name (Submission ID)</b> Doug Hildenbrand (19940)		
1517	We are fully in support of proceeding with the project as proposed! Congrats to the agencies who have played a vital role in developing controls and measures that address environmental concerns.	NEPA16
<b>Sender Name (Submission ID)</b> Doug Lande (57346)		
18404	I am requesting that the executives in charge of approving or disapproving the DEIS will take the "no-action alternative," as stated in the executive summary, on Page 43, and that no land exchange of public property be allowed to create a mining operation for private financial gain.	LAN01
18407	the DEIS doesn't take into account uncontrolled Co2 emissions, such as that generated by the electric plant used by the mining operation. I don't think this is accounted for in the edition which says that the Co2 emissions are minor and not a major emission source. So, I would like to see all controlled and uncontrolled Co2 emissions related to the mining operation be listed.	AIR05
18409	I don't believe that the DEIS explains who does the monitoring of potential pollution sites, who pays for the monitoring, and where the public can access in an easy manner the monitoring results.	PD24

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Doug Lande (57346)		
18410	I do not believe that, as stated in the DEIS, that reclaimed wetlands should serve for mitigation lands, as they will never again be as productive as they were before they were reclaimed.	COE01
18411	don't believe that the 90th percentile discussion of probable pollution levels related to water is appropriate and I believe the modeling to be flawed as described in the dissenting opinion of the tribes.	WR192, WR193
<b>Sender Name (Submission ID)</b> Douglas DeNio (42794)		
6896	Hard rock mining and surface/ground water contamination are not mutually exclusive. Recent and historical evidence of water contamination associated with hard rock mining in the Rocky Mountain West is prevalent and damaging....	WR023
6901	The take-away from the Summitville mine disaster as relates to the proposed PolyMet Mine are many, but the most prominent are 1)requiring an adequate performance bond and 2) ensuring design parameters meet present day climate conditions. As a registered professional engineer, I would state that the minimum performance bond requirement for the proposed Polymet Mine be in the range of \$500 -\$800 million dollars. Likewise in ever changing climate, all treatment, wastewater collection, storm water collection and containment facilities need to be designed for a 28 inch rainfall event over a 36 hour period to prevent mine contaminants from being discharged to ground or surface waters. ...Meaningful water modeling results require the input of rainfall events of this magnitude to insure prediction accuracy which translate into design parameters for all aspects of the mining facility and processes. Hard performance requirements such as these must be included as part of the Draft EIS for the proposed PloyMet mine....The Draft EIS does not sufficiently identify cumulative effects of future mining operations in conjunction with the PolyMet proposal. ...what happens to the mining permit after the NEPA process plays out and the permit is issued. Will PolyMet transfer the permit to another domestic, Canadian or Chinese firm for considerable remuneration? This possibility requires that the EIS address anychange/transfer maneuver so that all health, life safety and environmental provisions are ironclad and can be enforced wherever the final permit lands.	PER03
6908	Job projections on these types of natural resource extraction projects can be highly variable. I would estimate far less than half of the 350 jobs projected in the EIS will become available to existing Iron Range residents. Based on my observations with the gas extraction industry, top management, professional, mid level management and mining technicians will come from out of country or out of state. A significant amount of trade jobs will also be filled by non-resident employees. ...The draft EIS needs to identify net job creation for Iron Range residents after factoring in job losses from other existing local economies....Certainly the metal commodity has speculative component to it as would any commodity (copper is down in price for the past several months).	SO06
6909	The proposed PolyMet mining project will also jeopardize other sustainable economies that already provide existing jobs such as tourism, recreation, hunting, fishing, canoeing, etc.	LU06
<b>Sender Name (Submission ID)</b> Douglas Gregor (54857)		
19331	The best way to truly secure [financial assurance]... is to create a pool of funds that is: (i) held and "owned" by the State; (ii) is not "owned" in any way by the NorthMet site operators; and (iii) which is irrevocably available and committed to cover reclamation costs. The State also must secure the right to enter upon the production lands and perform any and all required remediationactions. To fully pre-fund such a "trust" fund would be prohibitively expensive for a start-up company such as is envisioned at the NorthMet site. A more realistic approach would be to require some pre-funding of such a "trust" fund, supplemented by more traditional forms of financial assurances for the balance of the initial projected reclamation costs.	FIN01, FIN08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Douglas Gregor (54857)		
19333	To fully fund the projected reclamation obligations over time, the State might wish to consider a modified form of the Taconite Economic Development Fund program contained in Minnesota Statutes Section 298.227. That program sets aside a portion (31 cents per ton) of the production taxes levied by the State against the producer entity to be available for the partial funding of capitalimprovement projects. In the case of the ...NorthMet project, a similar portion of the production taxes collected by the State from its ore production could be placed each production year into a "Reclamation Fund" ...to ensure that funds would be available for use by the State when and if the producer entitycould not fund needed reclamation costs.	FIN01, FIN08
19334	The critical challenge of the [financial assurance] proposal would be structure the fund in such a way that no portion of those trust funds would ever be subject to the claims of any bankruptcy court or creditors of the producer entity. The fund would always be "as good as gold" and available to ensure that the State would not inherit any reclamation expenses	FIN01, FIN08
19335	there should be a "Citizens Advisory Council" ("CAC") established by special legislation that exists from the day that the initial permits are issued and continues ... until any and all site remediation work is completed ... While the State does have ... the responsibility for enforcing environmental regulations, history suggests that, over the course of time, adequate funding and staffing for such enforcement efforts may diminish, the regulators may become too accommodating and sympathetic to the interests of the producer, and the regulating agencies may be torn between the State's desire to promote economic activity, employment and tax revenues, and its equally significant obligation to protect the State's natural environment.	PER06, PER24
19336	... representatives [of the proposed "Citizens Advisory Council" could be drawn from the ranks of many of the same organizations that have... participated in the environmental review process- such as representatives of the local tourism industry, native American tribes, commercial fishing interests, natural environmental advocacy groups, water quality advocacy groups (from all potentially affected watersheds), and similar groups.	NEPA08
19337	To be and remain effective, the [proposed "Citizens Advisory Council"] CAC would have to have an assured and adequate budget ... [and] would have authority and perhaps even a mandate to employ professional engineers and environmental specialists, accountable only to the CAC, to monitor the site activities. It would be absolutely critical that the CAC have inspecting engineers on site during the construction and installation ... of all of the required environmental regulation facilities and equipment	PD24
<b>Sender Name (Submission ID)</b> Douglas Kuehl (44549)		
11768	There exists at least one assessment that ... needs to be considered before mining should be permitted... whether or not there exists sufficient need for the amount of copper and nickel expected to be mined when considering the current and future developments in replacement products, i.e. will the new technologies that have been developed using carbon nano-fiber for electronics, building materials, etc. rapidly replace the need for even small amounts of new sources of copper and nickel, thus resulting in rapidly making the mining operation unprofitable.	NEPA03
11772	This may be reviewed on the internet in, among other sources, at HYPERLINK "http://www.mining.com"www.mining.com by looking at discussions of the research results of Cambridge University, or simply searching for applications of carbon nanofibers on the internet.	REF01
<b>Sender Name (Submission ID)</b> Douglas P Fulton (54727)		
18716	The environmental review process has been long and very expensive, but the SDEIS demonstrates that PolyMet will help meet our nation's demand for copper, nickel, platinum, palladium, gold and cobalt, put Northeastern Minnesotans back to work and ensure the protection of our precious natural resources.	SO10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Douglas P Fulton (54727)		
18717	As described in chapter 5 of the SDEIS, PolyMet's NorthMet project would generate as many as 500 direct jobs during peak construction and 360 direct jobs during operations. The direct jobs would generate additional indirect and induced employment of 332 during construction-phase and 631 additional operations phase jobs. These jobs, as well as the estimated \$80 million annually in federal, state and local taxes, are very important to the future of the Iron Range and Minnesota.	SO06
<b>Sender Name (Submission ID)</b> Douglas Wood (45685)		
12855	I am opposed to the proposed PolyMet & Twin Metals mine operation in NE Minnesota...Because of the location of the minerals, all within igneous and metamorphic bedrock billions of years old and laced with fractures, the chances of acid contamination are high...A waste water treatment program that will need to be in place and stringently monitored and overseen for a period of at least 500 years... [high potential impact to water due to] location of these and other mining proposals is at the head of two great watersheds - St. Lawrence Seaway (including of course incredibly valuable and highly sensitive Lake Superior and the other Great Lake and Hudson's Bay.	WR001, WR010, WR111, WR198
12856	economic benefits of tourism alone in the area - the Boundary Waters alone is visited by 140,000 visitors a year on multi- day trips - dwarf these potential [socioeconomic] benefits in the short term, but more importantly in the long term.	SO02
<b>Sender Name (Submission ID)</b> Drake Best (54334)		
16892	The disadvantages overpower the advantages. The copper-sulfate mining process could boost Minnesota's economy, but we can find other ways to boost the economy. The effect on the environment is not good. Although PolyMet is planning to minimize or possibly avoid the effects, they can't stop everything that could happen.	SO01
16894	The Ojibwe people would lose part of the sacred Mesabe Widjiu. It is not fair to take away even one inch of their sacred land. Many Indian tribes throughout the country have lost most or all of its land. Taking away even more of their land is unethical.	CR03, CR05
16895	PolyMet should not mine in the region is, the effect it would have on endangered species. One endangered species in particular would be the Canada Lynx. The Canada Lynx are struggling to sustain a population in Minnesota and mining would only exacerbate the situation.	WI01
17402	If the project does take place, 913 acres of wetlands would be permanently lost. I understand that PolyMet plans to recreate some of these wetlands after the mining is done, but they will not be able to replenish the valuable home of organisms and many animals.	WET05
17405	Mining in this region would also harm the St. Louis River. As many people know, the St. Louis River flows into Lake Superior. There is already a lot of pollutants in the lake, and polluting a river that flows into the lake would only make things worse.	WR111
<b>Sender Name (Submission ID)</b> Dressel (54853)		
19061	...sulfate rock oxidizes...to create sulfuric acid...Sulfuric acid in ground water will cause leaching of heavy metals such as mercury from rocks further contaminating the water. These are unavoidable consequences of this type of mining. The proposed mine will require decades or perhaps centuries of wastewater monitoring and treatment...This is an intolerable length of time.	WR115
19063	...climate change has enhanced the likelihood of extreme precipitation events which can quickly overwhelm efforts to contain mine run-off.	WR180
19066	The proposed sulfate remediation process has not been adequately tested under the sensitive conditions prevalent in northern Minnesota...The mineral resources in the State are not going anywhere. The metals can be extracted later, safer, when the technology has been clearly proven.	PD32

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Drew Johnson (58113)	
19968	Some significant questions are left unanswered, including:How long will the mine need to be maintained? The study mentions 500 or more years. That sounds an awful lot like forever or we don't know to me.How much will maintenance cost? Maintaining a complex and polluted site forever would cost quite a lot, I assume.Who will pay the maintenance cost? I don't believe Polymet will be around forever so I can only assume that means Minnesotans will pay for it. Mining operations are expected to last 20 years, according to the study. After the 20 year boom what support will there ber for communities that will face the mining bust? Who will pay for and provide this support?	FIN01
<b>Sender Name (Submission ID)</b>	Duana Arvola (42515)	
15443	The new type of mining is already proven to work fine, even as the water is concerned.	PD28, WR190
<b>Sender Name (Submission ID)</b>	Duane Bieber (11533)	
2572	There is no map which shows an overview of the Lorentnen Devide or hight of land deviding the north from south water sheds or the [ILLEGIBLE] to St. Louis water sheds. You should have a large map at the next info meeting.	VEG02
2572	There is no map which shows an overview of the Lorentnen Devide or hight of land deviding the north from south water sheds or the [ILLEGIBLE] to St. Louis water sheds. You should have a large map at the next info meeting.	VEG02
<b>Sender Name (Submission ID)</b>	Duane Godbout (42528)	
3802	We trust the science behind this project and need the jobs.	NEPA16
<b>Sender Name (Submission ID)</b>	Duane J Lunda (57227)	
17174	My biggest concern is who is overseeing the project? Is it the same person who was in charge of the BP oil spill as reported in the news?	PD24
<b>Sender Name (Submission ID)</b>	Duane Larry Gerlovich (54480)	
17527	It seems like the pollution and runoff are or would cause some problems in surrounding area of Polymet. I think we would be better off with some type of manufacturing jobs that would not pollute the area up there.	SO01
<b>Sender Name (Submission ID)</b>	Duane R Schmidt (54831)	
18611	We need to...use this mining to increase the work force and extra tax base in this State. Money from outside the U.S. is good for our country if we use good common sense.	SO10
<b>Sender Name (Submission ID)</b>	Duane Sickmann (39582)	
6145	Clean water is what Minnesotans want as they passed the Clean Water Legacy Act "overwhelmingly" - these funds are not to clean up activities such as PolyMet's that never should be allowed to start without full measures to insure our waters are clean well into the future.	PER35
<b>Sender Name (Submission ID)</b>	Duluth Seaway Port Authority (19913)	

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Duluth Seaway Port Authority (19913)		
10016	PolyMet plans to invest \$475 million in its proposed NorthMet Project, a project that will provide a domestic supply of critical metals needed in products and processes essential to daily life and, in doing so, will create over 300 jobs and generate tax revenues that will benefit regional and statewide economic growth and development	SO10
14443	The NorthMet project has been designed to reuse a brownfield site and existing mine infrastructure, minimizing disturbance of wetlands and utilizing multiple safeguards to protect the environment	LU07
14450	With regard to PloyMet, we trust that in releasing a Supplemental Draft Environmental Impact Statement (SDEIS), the Minnesota Department of Natural Resources working in tandem with other state and federal agencies, has determined that the NorthMet Project meets their rigorous review process and state and federal environmental protection standards	NEPA16
14458	The startup of the proposed NorthMet Project opens up the potential for handling of new cargos through the multi-modal Port of Duluth-Superior, which leverages additional opportunities for domestic and international trade	SO10
14462	The Duluth Seaway Port Authority Board of Commissioners hereby offers this Resolution of Support for PolyMet Mining Corp. and the adequacy of the NorthMet Project SDEIS; supports the project moving to the next phase of environmental permitting; and commits to continue its efforts to support mining in northeastern Minnesota, value-added manufacturing, and opportunities for multi-modal cargo handling through the Port of Duluth Superior.	PER34
<b>Sender Name (Submission ID)</b> Duncan Storlie (52563)		
15354	no one can adequately plan for a 500 or 1,000 year flood event which is more and more possible!	PD22
<b>Sender Name (Submission ID)</b> Dureti Doto (54222)		
16726	The SDEIS incorrectly drew the one hundred mile swamp in the SDEIS maps. I also learned that the mine site is just south of the one hundred mile swamp that drains to the boundary waters. I am writing to you today because first of all people do notice the error on the SDEIS maps, because people really do care about the one hundred mile map and the boundary waters. And because it is not okay for the SDEIS to draw the map incorrectly.	PD38
17354	It is also not okay for the mines to contaminate the boundary waters. The boundary waters are important because they are clean and there are only a few of those left. We need to leave clean water for our future generations.	WR111
<b>Sender Name (Submission ID)</b> Dustin Bower (40623)		
6258	If the tachonite seepage is already exceeding water quality standards for the holding ponds, and the Polymet things (sic) the solution is to add even more pollution to the mix and create a few more massive holding ponds, and then use an unproven reverse osmosis system in an attempt to decontaminate the water...	PD03, PD10
<b>Sender Name (Submission ID)</b> Dustin Rosemark (3631)		
667	Should there be any damage to this area it would be long-lasting and potentially crippling to an already fragile eco-system.	WR115
<b>Sender Name (Submission ID)</b> Dwayne (38429)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Dwayne (38429)		
13638	The 500 years of water monitoring is also misleading. Is this a made up number? And technology keeps advancing. The water may very well be better than it is today.	WR190
13639	The 20 years of work they keep bringing up is not true. The permit would be good for 20 years, Then they would apply for another permit.	SO06
<b>Sender Name (Submission ID)</b> Dwayne Trulsen (30273)		
13853	There needs to be ways to mine without the severe secondary effects to our health and especially the health of our children!	HU03
<b>Sender Name (Submission ID)</b> Dwight and Ann Ericsson (10753)		
10780	I have, over the years traveled most parts of the Boundary Waters and much of the Quetico. It would be tragic to pollute those beautiful waters, as the PolyMet-proposed mine would almost certainly do.	WILD02
10782	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota.	WR195
10786	This project would violate water quality standards for generations to come.	PER09
13401	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
16975	This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Dwight Rabuse (58140)		
19976	The environmental plan PolyMet has proposed appears detailed and comprehensive and should assure the public that this important project is environmentally responsible and sound.	NEPA16
<b>Sender Name (Submission ID)</b> Dwight Smith (6269)		
10567	What is under consideration is a question that will have an impact on the land and water for literally centuries. Shouldn't this justify taking a few additional months of analysis and research before leaping into action? Additionally, is it really wise to consider something as momentous as this in the months leading up to national and state election? Certainly nobody can be so naive as to think there are no political ramifications to this matter.	NEPA03
10571	The Iron Range has endured decades of economic difficulties. While everyone would like to see a revival of that region's economy, some additional time taken to get it "right" isn't going make that great a difference. If the decisions are rushed, generations of Minnesotans may be paying the consequences of hasty action.	SO04
<b>Sender Name (Submission ID)</b> Dyces (21482)		
1467	What good is the promise of a few jobs when the water becomes contaminated? What happens to the numerous tourist and recreation jobs that rely on clean water and undamaged wilderness?	SO01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Dyces (21482)		
1468	PolyMet will not be around for the next 250 – 500 years to make good on their “promise” to protect the water.	FIN01
1469	When the sulfide mining process sees sulfide and life giving water interacting, sulfuric acid is produced on a very large scale... As the acid dissolves the rock, heavy metals are released. Heavy metals no longer trapped in rock become yet another, real and present danger to humans, fish, birds, plants and other wildlife.	WI04, WR001
<b>Sender Name (Submission ID)</b> Dyke Williams (10693)		
575	That only about 90 jobs will go to local northern Minnesota residents - the rest to out-of-state experts in various arcane skills related to this most dangerous mining plan.	SO06
576	It is clear to most of us that the Arrowhead will be far better off economically if left relatively clean - land untrammelled, water unpolluted, air unburdened with particulates, roads unclogged with huge, dangerous and impeding traffic, sound left quiet without the roar of Diesel and shock impact of drills and explosives.	SO02
577	No planning has been made for unintended consequences, nor for unexpected events.	PD22
578	Please, please listen to all of us who are saying 20 years' profits for 500 years pollution is going "too far".	SO01
<b>Sender Name (Submission ID)</b> E H Hanson (42741)		
12063	Jobs sound good – but don’t let this overshadow the ‘RIGHT’ decision.Many of us don’t sit in on close door meetings. ... We are still paying for the 3M pollution damage.	SO01
<b>Sender Name (Submission ID)</b> E Lane-Getaz (45643)		
12852	while jobs are important, Polymet project is expected to create 360 jobs...after experts in the mining field are brought to the site, this will creat only about 90 local hires.	SO06
15927	I am concerned about pollution left for hundreds of years, the technology required to preserve the safety of our water is not adequate...	WR115, WR128
<b>Sender Name (Submission ID)</b> Eben Spencer (39496)		
7663	While I understand the need for meaningful employment in the region, the potential environmental degradation inherent with such mining must be avoided at all costs.	SO01
7832	I urge the Minnesota DNR, MPCA, and the USA EPA to require the strictest of standards and to protect our national heritage – our waters, forests, and wetlands – first and foremost. I do not feel that Polymet has provided such assurances yet, and strongly feel that permits should not be issued at this point, nor should permits be issued until further studies and guarantees are in place and 100% foolproof.	PER35
<b>Sender Name (Submission ID)</b> Ed Verzal (45275)		
9170	I do not want to see sulfuric acid waste from this project destroy the wetlands, rivers, streams, and trees in the Superior National Forest and Boundary Waters Canoe Area	WET24, WR024, WR081, WR090, WR111, WR175

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ed Verzal (45275)		
9171	Tourism is an important and viable industry in this part of the state and should not be compromised by a risky mining project.	SO02
9172	We as a state cannot afford to clean up this pollution for hundreds of years.	FIN01
14197	there is no way to ensure that Polymet will be able or willing to pay for restoration of land/water areas destroyed by pollution.	FIN01
<b>Sender Name (Submission ID)</b> Edi Thorstensson (20051)		
1698	My concern centers on the potential for irreversible damage to the environment, water pollution, industrialization and limited access to a large natural area, and economic loss for residents of the area due to lost recreational revenue.	LU06
<b>Sender Name (Submission ID)</b> Edith deGroot (41700)		
2164	I can't believe the State of Minnesota would want to be in jeopardy for the endless "clean water" problems that would be generated for a period of 500 years!	WR195
<b>Sender Name (Submission ID)</b> Edith S. Glass-Englund (19977)		
1616	I have seen what mining operations do to our northern wilderness. I believe that if the people of that area are conflicted about the mines presence, that they have a more definitive opinion about the impact of this mine on their livelihoods.	SO02
<b>Sender Name (Submission ID)</b> Edmund Kelley (14818)		
8886	Is it feasible that adequate financial safeguards from a long-term financially solvent and viable a source can be maintained throughout the longer of the two following periods: (i) in which active water treatment is required, or (ii) in which there is a realistic risk of pollution of groundwater?	FIN01
13794	What is the period of time in which active water treatment will be required to keep area water, including groundwater, safe and clean to standards required of areas bordering federal protected wilderness areas?	PD03, WR036
13800	What is the risk that polluted seepage will occur from the tailings basin into the groundwater, without the seepage first being treated?	PD03, WR018
13801	The nation has been surprised by the lack of emergency/contingency plans in place to prevent environment damage from foreseeable risks in the off-shore oil drilling industry and in the mining industry. Has adequate contingency/worst case/emergency planning has been done around such an event occurring at Polymet's facilities.	GT15
<b>Sender Name (Submission ID)</b> Edward A Alto (54706)		
17763	My concern with the non-ferrous mine proposed for the East Range is the possible EMP exposure to a new generation of miners. As a former Erie/LTV worker, myself and many others who worked around the dusty operation now suffer pleural abnormalities or worse as the latency period from exposure to onset of symptoms is decades long.	HU03
17764	Nowhere have I seen [the health of the mine workers] being addressed in the permitting process for PolyMet, although they will mine the same area we previously did. This should be a "RIGHT TO KNOW" issue for any worker involved in mining operations in this area.	HAZ05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Edward Pajunen (41270)		
9312	The region, the state, the US and the world will all benefit economically and environmentally.	SO04
<b>Sender Name (Submission ID)</b> Edwin Wintermute (27592)		
14740	Unless there is an over-riding need for the sulfides that would be produced, this proposal should be rejected. The need for untrammelled natural spaces should take precedence.	SO01
<b>Sender Name (Submission ID)</b> Edwina Hertzberg (6160)		
1050	ask that the possibility of Polymet Mining Corp. mining in this region be fully and thoroughly studied, that no permit be granted until such studies are complete, and then only if Polymet can assure an escrow account that would pay for cleanup for the 500 years that the region would be affected.	FIN01, FIN05
1052	Short-term jobs that risk long -term pollution would be a short-sided and foolish decision, risking the beauty of this precious part of the globe.	SO01
1053	It is impossible for Polymet to assure that no accident can happen, no mistake made that would jeopardize the safety and beauty of this corner of the earth.	PD01
<b>Sender Name (Submission ID)</b> Edwyna Bergh (11527)		
17107	The loss [in delaying] is the more spent in getting permits the more the expenses can be deducted by the company when the profits come rolling in.	PER20
17107	The loss [in delaying] is the more spent in getting permits the more the expenses can be deducted by the company when the profits come rolling in.	PER20
<b>Sender Name (Submission ID)</b> Eh Ku Soe Tun Baw (42927)		
9758	More importantly, though, the project presents unacceptable environmental risks to people, animals, and to the both the current habitat and the water supply that may spread throughout Minnesota.	HU03
9761	This contaminated rock will multiply and combined with all the snow and rain that falls in northern MN, it will be impossible to contain these dangerous pollutants.	WR017, WR018
9762	Despite plans for “reverse osmosis” and a complex system of controls that includes ditches, dikes, and ponds, it is very doubtful that all that all the engineering in this world can and will prevent the toxins from spreading and leaking into the water supply.	WR130, WR158
9763	Building of this hazardous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years.	WR115
9764	Any economic development that may be gained by the community is not worth endangering clean water and habitat in the entire Lake Superior basin.	SO01
9765	If approved, this first-ever sulfide mine in Minnesota threatens to poison a very large area of northern MN with hazardous toxins and it would open the door for future mines that would endanger the Boundary Waters wilderness.	CU11
<b>Sender Name (Submission ID)</b> Eileen Anderson (39738)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Eileen Anderson (39738)		
7100	Please keep our waters clean and this area pristine. ... This area deserves to be kept special for Minnesotans and any that want to experience the beauty of this spot on earth. The highest good would be to preserve this area for the generations to come.	LU06
<b>Sender Name (Submission ID)</b> Eileen Molitor (57166)		
18697	The probability of poison going into the water is way too dangerous to our environment. It is never ok to ruin our water. It is way too important to our health.	WR107, WR108
<b>Sender Name (Submission ID)</b> Elaine Brown (9575)		
211	Approval or not, they will at some point fold the tent and move on, leaving another generation of Iron Rangers looking for sustainable employment.	SO02
213	Polymet is not here to help the people of the Iron Range find sustainable employment, nor is it their goal to build the local economy. They are corporation with world wide corporate interests and investments.	SO10
1122	I do agree that mining is destructive to the environment, but I can not see clearly that Polymet can promise less destruction.	PD01
1123	Mining is an economy build on a boom to bust cycle.	SO02
1124	A classic example of science gone wrong is what is currently happening in Washington state at the Hanford Nuclear Waste Treatment Site. It is leaking, an unbelievable amount of money has been and continues to be spent, the Governor of Washington is seeking a fix, and a resolution is not forth coming. I do not believe it was the intention of anyone in the Pacific Northwest to contaminate the Columbia River Gorge, but that is what they are left with some seventy years after the construction of the site. It makes me wonder how predictions upwards of 500 years could possibly seem reliable?	PD03
<b>Sender Name (Submission ID)</b> Elaine Kaeter (54800)		
18143	Moose, Lynx, and Wild Rice. Analysis of the impact on animals, their habitat, and wild rice beds is lacking in PolyMet's statement.	VEG04, WI01, WI02
18144	Minnesota law requires that a closed mine site be "maintenance free," but PolyMet's mine plan calls for 500+ years of water treatment.	PER04
18145	Mining companies often declare bankruptcy and walk away from closed,polluting mines. Minnesota law requires a damage deposit that is supposed to cover cleanup and pollution costs, but PolyMet's mine plan includes no details about the damage deposit.	FIN01, FIN08
18146	DNR hydrology data show that the PolyMet water model significantly understates the amount of water flow in the area, which makes Poly Met's pollution and cleanup estimates inaccurate.	WR003
18147	Poly Met would emit dangerous amounts of mercury every year, as would the coal plants supplying power to the mine.	MERC01
18148	Carbon emissions would dramatically increase due to the increase in coal power, in opposition to Minnesota's stated goal to reduce carbon emissions.	AIR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elaine Kaeter (54800)		
18149	PolyMet would destroy valuable wetlands. The land swap they propose understates the amount of wetlands that would be destroyed. The land swap PolyMet proposes would be far away from the mine site so is not an equitable or equivalent swap.	WET14
18150	PolyMet's statement has not addressed potential health threats in the near as well as distant future.	HU01
<b>Sender Name (Submission ID)</b> Elaine Loeffler (11353)		
268	500 Years of monitoring is not a realistic plan.	PD01
270	Jobs for a short time will not balance out the extreme risk current mining operations pose to the area. It would be cheaper to pay those workers for twenty years to stay home and not take on the mining risk.	SO01
1631	The PolyMet SDEIS is still inadequate. It makes claims without facts behind them. It doesn't explore alternatives that could reduce PolyMet's destruction of wetlands and waterways.	NEPA15
1632	A realistic plan would lay out years to mine, years to close down the mine, and years to monitor the plan, with a timeline completed within a human lifetime. That would be a plan that could be considered for permitting responsibly by today's agencies.	PER35
1633	Please reject the PolyMet SDEIS and deny permits. The known risks are too great.	PER35
<b>Sender Name (Submission ID)</b> Elaine Skrentner (40099)		
6462	Do not risk Minnesota's water for the next 500 years for a 50 years of economic development.	WR195
<b>Sender Name (Submission ID)</b> Elaine Swanson (31590)		
14009	At the core of our efforts lies the belief that the land and wildlife deserve our reverence and respect. I see a violation of both when an open pit sulfide mine is proposed on National Forest lands near the Boundary Waters Canoe Area Wilderness and Lake Superior.	WILD02
<b>Sender Name (Submission ID)</b> Elaine Thrune (6230)		
10542	NO AMOUNT of "progress" or "economic advancement" or "more jobs" or corporate gain, or more tax revenue is worth the price of polluting our land and water, destroying wetlands, poisoning our children (and adults, and livestock, and pets, and wildlife), killing fish, poisoning rivers and groundwater used for drinking water and irrigation, and negatively affecting our entire food chain and living habitat in this part of our beautiful and otherwise mostly healthy state. We all live downstream.	SO01
<b>Sender Name (Submission ID)</b> Elanne Palcich (42959)		
7500	The Land Exchange bypasses the most important obligation of the U.S. Forest Service, which is that of protecting the surface area of land purchased under the Weeks Act.	LAN02
7513	The SDEIS claims that PolyMet's water treatment (Waste Water Treatment Facility) will actually reduce sulfate and mercury loads within the Partridge and Embarrass Rivers. This conclusion unrealistically assumes that mercury and sulfates will not travel further in the watershed, and that water treatment will be 100% fail-proof.	WR129, WR144, WR158

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Elanne Palcich (42959)	
7515	In addition to underground water flow patterns, due to fractured bedrock, there is also some question about water drainage regarding the 100 Mile Swamp. According to 2011 lidar data, it appears there are actually man-made dikes that decide the water movement between the Rainy and Lake Superior watersheds.... More accurate mapping is needed.	WR071, WR080
15025	The Forest Service omitted an underground mine option as the only legal alternative; because it was omitted, the plan was never analyzed. As a result, the Forest Service has wasted tax payer money and agency time on the preparation of an open pit proposal that cannot meet the obligations belonging to the Forest Service.	ALT01
15026	The rationale for choosing the proposed parcels to be exchanged fails to demonstrate that this would be an equal exchange.	LAN03
15027	The Forest Service fails to adequately analyze the loss of wetlands and Aquatic Resources of National Importance (ARNI). The loss of wetlands in acreage would be significant and the quality of the wetlands irreplaceable.	WET19
15028	The Forest Service fails to adequately analyze the loss of wildlife, bird and migratory bird habitat, and the loss of wildlife corridors. Of great concern is the lack of analysis on impacts to threatened or endangered wildlife species or Regional Forester Sensitive Species (RFSS) of plants.	VEG01, WI01, WI02, WI03
15029	the concept of a land exchange as put forth by the Forest Service presents a precedence that would greatly facilitate the opening of a sulfide mine district in what is now Superior National Forest. The Forest Service is thus removing itself from its over-riding obligation to the citizens of this state and nation, in which land was put aside in order to protect the watershed and preserve the natural quality and character of the land for all generations.	LAN02
15030	The Forest Service also fails to adequately analyze the economic impact of copper-nickel sulfide mining in northeast Minnesota, by neglecting to analyze the costs of degradation to the environment over a time frame of 500 years or more, and by not considering the loss of current and potential jobs that are based on a clean environment.	SO01
15037	the Forest Service has neglected to adequately analyze cumulative impacts to the Forest, including continued mineral exploration, taconite mine expansion, and potential copper-nickel mining proposals from Teck Cominco and Twin Metals. The Forest Service has failed to fulfill its obligations to protect and preserve our public lands according to Federal law, including the National Environmental Policy Act (NEPA). The land exchange violates the Weeks Act of March 1, 1911, the Federal Land Policy and Management Act of 1976, and the Federal Land Exchange Facilitation Act of 1988	NEPA04
15038	Various land exchanges that are being considered must also be disclosed in the SDEIS and how they may impact the potential environmental impacts related to the PolyMet project. This includes the proposed School Trust Lands – Boundary Waters land exchange.	CU08
15040	On Mar 12, 2014 Rep. Richard Nolan [D-MN8] introduced H.R. 4220: To authorize the exchange of certain Federal land and non-Federal land in the State of Minnesota. This land exchange must be included in the PolyMet NorthMet environmental review. ...This land exchange ...must undergo citizen scrutiny.	CU08
15043	cumulative effects that include existing and already permitted taconite expansion must be included in sulfate and mercury impacts...potential PolyMet expansion as outlined in the Edison Report, and additional potential copper-nickel mining, as evidenced by bulk sampling by Teck Cominco and a pre-feasibility study by Twin Metals, must be included in mercury/sulfate impacts	CU02
15044	air-borne mercury impacts must be analyzed	AIR05
15045	existing pollution in the St. Louis River watershed must be incorporated into the data	CU01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elanne Palcich (42959)		
15051	existing evidence from sulfate-wild rice studies, which proves that there is a sulfate-sulfide connection that impairs the growth of wild rice, must be incorporated into the data	VEG04, WR152
15053	waste water treatment plans must include alternatives	ALT13, WR035
15054	mitigation plans for leaking or broken pipes... [and] extreme water events must be included along with seasonal changes in water loads and normal storm events.	WR131
15058	Further analysis is required, especially regarding a major storm event, that could spill polluted water into the Rainy River watershed, as well as the St. Louis River watershed. When past mining activity (LTV) has changed the water flow and altered land forms so dramatically, it is negligent to omit the potential impacts of the NorthMet project on water flow patterns and the travel distances of potential mine water contamination.	WR057, WR077, WR085, WR180
15060	a health impact analysis [is missing from the SDEIS]	HU01
15061	an economic analysis that considers negative impacts due to loss of clean water resources for health and recreation [is missing from the SDEIS]	SO04
15062	climate impacts resulting from the loss of carbon sequestration due to loss of forests and wetlands ...[and] greenhouse gas emissions due to energy consumption and diesel fuels [are missing from the SDEIS]	AIR01
15063	safety hazards due to transport or spilling of chemicals used in flotation processes or in the hydromet [are missing from the SDEIS]	PD22, PD36
15064	loss of wildlife habitat and corridors and impacts to endangered, threatened, or species of concern [are missing from the SDEIS]	WI01, WI02, WI03
15065	adequate cumulative analysis to the region of all mining impacts [is missing from the SDEIS]	CU18
15066	we do not know enough about bedrock fractures and ground water flow to determine the full scope of pollution that would result from sulfide mining	WR012
15067	Water treatment analysis, as prepared by ERM, states that water treatment will be needed at the mine site for at least 200 years and the plant site for 500 years. ... Obviously, the necessity for this kind of long-term treatment means that this mine plan should not be permitted.	WR035
15068	The Treaty of 1854 guarantees Minnesota's native populations hunting, fishing, and subsistence rights on Ceded Territories. Due to the impacts to water, wild rice, fish, and game, the concerns of the Tribal Nations should be enough to shelve the PolyMet project.	PER08
<b>Sender Name (Submission ID)</b> Eleanor & John P Yackel (42807)		
7064	We urge your agency to deny permits that would allow this mine to be developed, in consideration of the long-term harm to the environment of that sensitive wetlands area, as well as to knowledge of the history of harm that abandoned mine development has caused.	COE03
<b>Sender Name (Submission ID)</b> Eleanor Wagner (54692)		
17813	I am strongly opposed to the PolyMet Mining Project because of the detrimental effect on our state, especially the Boundary Waters Canoe Area and our beautiful northern Minnesota.	WILD02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Eleanor Wagner (54692)		
17815	Although the project would create jobs, I think it would cost jobs in terms of tourism, and the damage to our water, fish, wild rice and climate would totally outweigh any possible benefit.	SO01
19824	The jobs gained are not worth the damage.	SO01
19827	if the project goes through, tourism jobs would be lost	SO01
19871	Even though it would create some jobs, the damage to our environment more than offsets the benefit of the jobs.	SO02
<b>Sender Name (Submission ID)</b> Elena Willmot (45104)		
7582	While the number of resources affected [water quantity, air quality, wetlands, and vegetation] may seem small, their impacts are overwhelmingly important in the regional and global climate.	AIR01
7588	Air quality, especially, does not have simple local effects but can affect neighboring communities, states, or countries. Not to mention that increases in CO2 emissions on the order of 200,000 metric tons per year is the last thing this planet needs.	AIR07
7591	The mining technology is outdated and no longer suited for this environment if we hope to maintain the beauty of our national parks.	LU04
16759	Many people in Wisconsin speak about northern Minnesota as their sacred place: the place to which they retreat to find peace, comfort, and pleasure. I, personally, have not yet been to northern Minnesota, but I would hate my first trip to include dirty water, foul air, and no wildlife	WILD02
<b>Sender Name (Submission ID)</b> Eleni Johnson (54532)		
19058	Please think about the cost, payoff & benefit. Worth the cost is the land and the water, the benefit is jobs and the payoff is both you getting to say you've created jobs and you making money. Let's think creatively in 2014., THERE ARE OTHER WAYS TO CREATE JOBS.	SO01
<b>Sender Name (Submission ID)</b> Eleonora Lesar (42548)		
15616	The EIS more than supports the fact they can do the mining & extracting in an environmentally sensitive manner. It's time for the permitting process to move forward.	PER34
<b>Sender Name (Submission ID)</b> Elexus Garcia (54223)		
16731	The mere fact that even considering mining near any pure water, untouched by chemicals and etc, is the most degrading consideration to those who care, who just want to protect the land and the water surrounding/in the boundary waters.	WR195
17355	those who are pushing the mining in the BWCA are Are blatantly putting false images of the swamp that the mining would lead into. The fact is they're falsifying facts by removing from view of citizens the connected creek of lanely to the BWCA .Only allowing you to see the river to lake superior, And people believe this!. There are two connecting waterways through the swamp;lanely creek connected to BWCA and partridge river that connects to lake superior.	PD38
17356	And i think in order to justify that this won't affect the BWCA is to then place two water wells in the swamp and in Langley creek to test the transportation of dye in the run off. Then we should have a answer of how this will affect the people on the side BWCCA and the BWCA.	WR081

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Eli Bissonett (45195)		
9001	Please describe a realistic and enduring legal framework for financial assurance that would render damage deposits bankruptcy-proof. What is the agreed definition of "bankruptcy-proof", among Polymet and all involved agencies	FIN03
9003	Please include more qualitative modeling of the effects of the proposed action on mercury in fish, flora, and fauna.	VEG06, WI04
9005	Please conduct a health impact assessment for the PolyMet project, and include the results of the assessment in the EIS	HU01
15515	Please address concerns raised by the tribal cooperating agencies that the LTVSMC tailings may become saturated and may even become a mercury source, rather than a mercury sink.	MERC20
15522	Please redo the GoldSim water model to account for seasonal variations in base flow and soil conductivity. Please don't let the SDEIS wording underestimate the possible magnitude of ground water base flow unpredictabilities, especially those incurred by seasonal fluctuations of water levels.	WR003, WR065, WR071, WR177
15524	Please provide detailed descriptions or modeling of how PolyMet mining operations could strain existing health and social service infrastructure.	HU01
<b>Sender Name (Submission ID)</b> Eli Riesgraf (54351)		
17629	The disadvantages though are not so obvious, people just think about what we will get from the mine and not what we will create from this. We will create pollution, as in bad air quality. The air we breathe to live, is going to get ruined, even if it's just a little bit, it will get ruined.	SO02
17631	In northern Minnesota [there are] a lot of cultural resources. The company would expand and ruin some of the cultural sites up there. They would ruin the sites with dust, smoke, and other air pollutants.	CR02, CR05
17632	The one good thing this company is doing is the land exchange. I think this is the good thing because they are giving back what they take and use. What I mean by that is that you are using like 6,500 acres for the mining, and in return you guys are buying around 6,500 acres and giving it to the public. Now that is a good way to give land back to the public.	LAN11
18178	I think the people up there agree with me when I say the pollution will affect their breathing. All the dust, smoke, and air chemicals will maybe cause diseases to people breathing the air pollutants. No matter how well you try to hold in the pollutants, some will always escape into the air.	HU03
<b>Sender Name (Submission ID)</b> Elias Anoszko (44798)		
12832	This mine is short sighted and would permanently impair the environmental quality of one of the most biologically rich areas of Minnesota.	VEG02
12833	Sulfide mining has never been shown to not pollute and we can expect to be dealing with the pollution from Polymet long after Polymet has gone bankrupt. Who pays for pollution? we the tax payers of MN will be paying for it, not the mining company.	FIN01
12834	The lakes of the BWCAW already have high levels of mercury pollution, making the fish in some lakes unsafe for human consumption. Polymet must not be allowed to add to the mercury load of these already threatened water bodies.	MERC02, MERC23
12835	Furthermore Polymet there is a good chance that Polymet would leach acid mine drainage into area lakes and streams that have inherently low buffering capacity. This could make much of the affected areas unsuitable for growing wild rice.	VEG04
16436	The mine plan inaccurately describes wild rice waters, understating the area that supports stands of wild rice.	VEG04, WR154

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Elias Anoszko (44798)	
16437	Millions of gallons of untreated polluted water will escape every year, and the mine plan predicts an increased chance that water exceeding the sulfate standard will be released at times, years after closure.	WR070, WR156, WR158
<b>Sender Name (Submission ID)</b>	elise kylo (20231)	
1812	We must consider the long term costs of these open pit mines; the costs of the pollution of an undetermined area for an undetermined time. It seems obvious that the risks far outweigh the potential benefits of this project.	SO01
1813	Who will be responsible for the long term management of the water and area polluted by this mine? Of course the company and its investors should be, but we know the company will try to weasel out of any clean up and long term pollution management.	FIN01
1814	If we could see the financial and societal costs of pollution seeping through bedrock, into lakes, wetlands, the atmosphere, fish, birds and finally into our bodies, we would obviously stand up and say no.	AIR11
7378	From close inspection upon the SDEIS, it seems their study is based upon tests that stretch the truth or conveniently have performed their tests so that outcomes are falsely positive.	NEPA09
7379	We must consider the long term costs of these open pit mines...Who will be responsible for the long term management of the water and area polluted by this mine? They have structured their corporation in a way that "legally" enables them to escape responsibility. The major investor of this project, Glencoe, a Swiss owned company has a long history of illegal activity.	FIN01
7380	If we could see the financial and societal costs of pollution seeping through bedrock, into lakes, wetlands, the atmosphere, fish, birds and finally into our bodies, we would obviously stand up and say no.	SO02
7381	Please reject the Poly-Met SDEIS and deny permits that would allow open pit sulfide mines.	PER35
7382	Please extend the comment period to allow the public fair time to investigate and comment upon the topic.	NEPA07
7918	The fact that water can be sipped from a BWCA lake, that wild rice can be harvested, is invaluable and this is at stake! People travel from around the world to experience the rare purity and silence of this wilderness.	WILD02
7920	Considering the impact of this project, it is logical to extend the comment period from 90 days to 180 days or more.	NEPA07
7932	What would we sacrifice even an acre for the short term impact of a few jobs and a bump in the economy when we know the benefits (if there are any) would be temporary and the negative consequences would certainly be passed onto countless future generations?	SO01
9006	There has never been a mining project that hasn't polluted. There is also a long list of previous mining projects that have failed to meet environmental standards, leaving the area polluted and sticking the local government and its taxpayers to pay for cleanup, or more likely, to live with the pollution because cleanup is too expensive and often not even possible. We must consider the long term costs of these open pit mines; the costs of the pollution of an undetermined area for an undetermined time.	FIN01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	elise kyllo (20231)	
9006	From close inspection upon the SDEIS, it seems their study is based upon tests that stretch the truth or conveniently have performed their tests so that outcomes are falsely positive. There has never been a mining project that hasn't polluted. There is also a long list of previous mining projects that have failed to meet environmental standards, leaving the area polluted and sticking the local government and its taxpayers to pay for cleanup, or more likely, to live with the pollution because cleanup is too expensive and often not even possible. We must consider the long term costs of these open pit mines; the costs of the pollution of an undetermined area for an undetermined time. It seems obvious that the risks far outweigh the potential benefits of this project.	FIN01, NEPA01
9434	Why would we sacrifice even an acre for the short term impact of a few jobs and a bump in the economy when we know the benefits (if there are any) would be temporary and the negative consequences would certainly be passed onto countless future generations?	SO01
9434	Why would we sacrifice even an acre for the short term impact of a few jobs and a bump in the economy when we know the benefits (if there are any) would be temporary and the negative consequences would certainly be passed onto countless future generations?	SO01
9435	Who will be responsible for the long term management of the water and area polluted by this mine? Of course the company and its investors should be, but we know the company will try to weasel out of any clean up and long term pollution management. They have structured their corporation in a way that "legally" enables them to escape responsibility. The major investor of this project, Glencoe, a Swiss owned company has a long history of illegal activity. Responsible mining and cleanup is not in their for profit interest.	FIN01
9435	Who will be responsible for the long term management of the water and area polluted by this mine? Of course the company and its investors should be, but we know the company will try to weasel out of any clean up and long term pollution management. They have structured their corporation in a way that "legally" enables them to escape responsibility. The major investor of this project, Glencoe, a Swiss owned company has a long history of illegal activity. Responsible mining and cleanup is not in their for profit interest.	FIN01
9436	If we could see the future, the choice would be clear. 526 acres of land on the edge of the BWCWA turned upside down, 167 million tons of waste rock covered by black plastic, supposedly enclosed in a waste treatment system, that requires continuous monitoring and maintenance for centuries to contain the toxins, which is realistically impossible. Hundreds of miles of dusty roads traveled by loud and smelly, polluting trucks, noise, light pollution. These mines are nothing like the Taconite mines of the past.	CU11
9436	If we could see the future, the choice would be clear. 526 acres of land on the edge of the BWCWA turned upside down, 167 million tons of waste rock covered by black plastic, supposedly enclosed in a waste treatment system, that requires continuous monitoring and maintenance for centuries to contain the toxins, which is realistically impossible. Hundreds of miles of dusty roads traveled by loud and smelly, polluting trucks, noise, light pollution. These mines are nothing like the Taconite mines of the past.	CU11
9437	If we could see the financial and societal costs of pollution seeping through bedrock, into lakes, wetlands, the atmosphere, fish, birds and finally into our bodies, we would obviously stand up and say no.	FIN10
9437	If we could see the financial and societal costs of pollution seeping through bedrock, into lakes, wetlands, the atmosphere, fish, birds and finally into our bodies, we would obviously stand up and say no.	FIN10
9440	It would be negligent of us to not question and thoroughly study the claims made by the company in the SDEIS report. Considering the impact of this project, it is logical to extend the comment period from 90 days to 180 days or more. Please extend the comment period to allow the public fair time to investigate and comment upon the topic.	NEPA07

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	elise kyllo (20231)	
9440	It would be negligent of us to not question and thoroughly study the claims made by the company in the SDEIS report. Considering the impact of this project, it is logical to extend the comment period from 90 days to 180 days or more. Please extend the comment period to allow the public fair time to investigate and comment upon the topic.	NEPA07
9442	The fact that water can be sipped from a BWCA lake, that wild rice can be harvested, is invaluable and this is at stake! People travel from around the world to experience the rare purity and silence of this wilderness.	WILD02
9442	The fact that water can be sipped from a BWCA lake, that wild rice can be harvested, is invaluable and this is at stake! People travel from around the world to experience the rare purity and silence of this wilderness.	WILD02
9443	Please protect our waters, the people that live here and the beauty that makes this one of Minnesota's favorite places to visit.	LU06
9443	Please protect our waters, the people that live here and the beauty that makes this one of Minnesota's favorite places to visit.	LU06
11098	There is also a long list of previous mining projects that have failed to meet environmental standards, leaving the area polluted and sticking the local government and its taxpayers to pay for clean up, or more likely, to live with the pollution because clean up is too expensive and often not even possible.	FIN01
11099	It seems obvious that the risks far outweigh the potential benefits of this project. Why would we sacrifice even an acre for the short term impact of a few jobs and a bump in the economy when we know the benefits (if there are any) would be temporary and the negative consequences would certainly be passed onto countless future generations?	SO01
11101	Who will be responsible for the long term management of the water and area polluted by this mine? Of course the company and its investors should be, but we know the company will try to weasel out of any clean up and long term pollution management.	PER02
11107	167 million tons of waste rock covered by black plastic, supposedly enclosed in a waste treatment system, that requires continuous monitoring and maintenance for centuries to contain the toxins, which is realistically impossible.	PD01
11109	It is not our duty to mine these minerals and we are not forced to accept the environmental damage.	GEN01
15361	526 acres of land on the edge of the BWCAWA turned upside down, 167 million tons of waste rock covered by black plastic, supposedly enclosed in a waste treatment system, that requires continuous monitoring and maintenance for centuries to contain the toxins, which is realistically impossible.	PD01
15362	Hundreds of miles of dusty roads traveled by loud and smelly, polluting trucks, noise, light pollution.	N01
16020	Why would we sacrifice even an acre for the short term impact of a few jobs and a bump in the economy when we know the benefits (if there are any) would be temporary and the negative consequences would certainly be passed onto countless future generations?	SO01
16037	Hundreds of miles of dusty roads traveled by loud and smelly, polluting trucks, noise, light pollution.	AIR07
16042	526 acres of land on the edge of the BWCAWA turned upside down, 167 million tons of waste rock covered by black plastic, supposedly enclosed in a waste treatment system, that requires continuous monitoring and maintenance for centuries to contain the toxins, which is realistically impossible.	WILD02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> elise kyllo (20231)		
16046	It would be negligent of us to not question and thoroughly study the claims made by the company in the SDEIS report. Considering the impact of this project, it is logical to extend the comment period from 90 days to 180 days or more. Please extend the comment period to allow the public fair time to investigate and comment upon the topic.	NEPA07
16055	The fact that water can be sipped from a BWCA lake, that wild rice can be harvested, is invaluable and this is at stake! People travel from around the world to experience the rare purity and silence of this wilderness.	WR156
<b>Sender Name (Submission ID)</b> Elisee J. Angoran (45858)		
10231	I am writing to request the immediate termination of PolyMet's project to implement the first open-pit copper-nickel mine in an area comprised of wetlands and water ways that could lead to the possible contamination of the Boundary Waters and Lake Superior.	WET24
10240	...sulfide oxides will release heavy metals in the ground and the water bodies around the mine. Decades after the mine has been closed, those heavy metals will remain in the soil and the water. That will be the same water in which many organisms have found their habitat, the same water used to grow our crops, and the same that will eventually be used for human consumption.	HU03
10248	The birds, fish, mammals, all part of the food chain, will be contaminated [by heavy metals], and contaminate the organisms that prey upon them.	AQ05
10251	Alternatives to open-pit mining do exist, such as hydrometallurgy. A leach liquor solution is used to extract the precious metal. An extractant is then used to extract the metal out of the solution then purified for use. This process will not generate millions of tons of rock waste, cheaper and more environmentally friendly than the traditional mining processes that cause a lot of pollution.	ALT19
10254	... the pollution that will be caused by the mine will take far too much time and resources to clean up. There are benefits to this mining pit, namely the much needed copper. However, the cascade of drastic consequences the pollution will bring, leading up to health issues in human populations. For these reasons, I strongly urge you to put a stop to this project.	HU03
<b>Sender Name (Submission ID)</b> Eliza Schrader (9617)		
15004	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever... This project would violate water quality standards for generations to come.	WR195
15005	the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
15006	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	MERC02, WR041, WR115, WR189
15009	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR017, WR018, WR022

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Eliza Schrader (9617)		
15012	The SDEIS must be redone to assess the impacts of slope and dam failure at the mine site waste rock piles and the tailings piles, instead of just assuming that no failure can happen. (SDEIS, p. 5-546). PolyMet’s tailings would be placed on top of huge, leaky and unstable existing tailings piles.	GT07, GT15
15355	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
15356	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	WR012
15357	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won’t allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
<b>Sender Name (Submission ID)</b> Elizabeth A. Phyle (43954)		
6884	The benefits of job creation and mineral access are simply not outweighed by the heavy [environmental] costs. ...The estimated 500 years of water clean up that will be necessary if this project is approved, far out ways the short term benefit.	SO01
6893	[PolyMet] should not be able to generate these [environmental] externalities in Minnesota and leave with the bulk of the profit.	FIN01
<b>Sender Name (Submission ID)</b> Elizabeth Ann Fryberger (57138)		
16830	Water is vital to life and Minnesota must protect this dwindling vital resource.	WR195
<b>Sender Name (Submission ID)</b> Elizabeth Bartlett (43416)		
15563	The people whose health would be most impacted are the miners and their families, probably for generations to come, the local indigenous population, and first and foremost women and children, including fetal health. Even small doses of mercury, methylmercury, lead, arsenic at critical moments of fetal development will cause irreversible damage to internal organs, spinal development, and brain development.	HU03
15566	Would the owners of Polymet be willing to have the pregnant women among their loved ones be exposed to the toxins that will be released in this mining project? I say, that they themselves must be willing to live here, drink this water, breathe this air. This is a multinational corporation which has no stake in the local population.	HU03
<b>Sender Name (Submission ID)</b> Elizabeth Bauchanan (14954)		
341	What is the purpose of a flourishing economy, when there is no environment left?	SO01
342	No matter how much forest regeneration you do, you can never 100% restore the damage that could be done.	VEG03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elizabeth Cerny (16731)		
10726	What effect will a 6-foot rise in sea level from global warming have on Lake Superior's level, and on the mine area? What happens to all the toxic runoff if the mine is flooded?	WR180, WR202
10731	Is all the water from those ten square miles of wetlands that will be "dewatered" going to run into the mine pit? Eleven point four square miles (the dewatered 10 plus the 1.4 of the mine itself) of prime wetlands is a lot of frogs, baby fish, herons and egrets, ducks, etc killed or made homeless.	WET24
10733	Can it be economically feasible, with constant water seepage and expensive water treatment necessary for 500 years?	FIN05
14701	[The proposed project] also threatens the entire economy of the region, which depends heavily on tourism, hunting and fishing and guide services for canoe trips into these waterways.	SO02
14702	Fishing will certainly end when the fish are no longer safe to eat, if the fish manage to survive in the polluted water.	AQ05
14703	he mining company admits that the wastewater would need treatment for at least 500 years! Will they be there treating it 500 years into the future? ...we know what the acidic, poisonous runoff water will be doing throughout that half-millennium: continuing to pollute everything downstream of the played-out mine.	FIN01
14704	Doesn't an "open pit" mine automatically mean cutting down and digging up a large area of forest?	PD30
14705	The noise pollution of the forest silence alone would scare off every animal for miles around.	N04
<b>Sender Name (Submission ID)</b> Elizabeth Dokken (16886)		
11016	•The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Elizabeth E Watson (46596)		
9179	No sulfide mine has ever operated without polluting nearby waters- and the rivers near the PolyMet mining proposed area flow into Lake Superior and are dangerously close to the BWCA. I can't see how these waters would not be affected and contaminated by the sulfide mining.	WR023, WR024, WR090, WR111, WR175
9180	PolyMet's model even shows that there will be need for water treatment of 500 years in order to fully decontaminate the water.	PD03
9181	Water is something that we are proud of in Minnesota, and I would hate to see that pride destroyed for 20 years of sulfide mining.	WR195
<b>Sender Name (Submission ID)</b> Elizabeth Frost (57164)		
18699	Please don't be short-sighted and approved mining that will compromise the BWCA. BWCA will bring in jobs to North Minnesota for a thousand years.	SO02
<b>Sender Name (Submission ID)</b> Elizabeth Heck (42896)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elizabeth Heck (42896)		
9230	We are also concerned about the amount of loss to wetlands. The wetlands involved are biologically of high value and contain critical habitat for important plant and wildlife species. Proposed wetland replacements are inadequate. The SDEIS does not sufficiently address this issue.	WET05
9231	Additional habitat loss is also a concern for rare and endangered species. These species are far too valuable for their destruction or harm due to short-term gains	WI01, WI02
9233	A detailed plan of financial assurance protecting Minnesota citizens is also significantly lacking. Please do not allow the burden up clean to unfairly be placed on taxpayers.	FIN10
18364	The SDEIS does not provide adequate data with any certainty to show how this project would avoid such a situation [pollution to surface and groundwater].	WR071, WR130
18371	the SDEIS contains water model data in conflict with DNR hydrology data, in particular for water flowing into the Partridge River. This information needs to be analyzed further to determine more accurate outcomes of the project.	WR003, WR091
18373	The SDEIS also does not provide sufficient modeling to determine how long treatment of polluted water will be necessary. Treatment of water could potentially be required indefinitely and needs further analysis.	WR036
18374	sufficient backup for any failure in water treatment systems has not been demonstrated.	PD03
18379	. The wetlands involved are biologically of high value and contain critical habitat for important plant and wildlife species. Proposed wetland replacements are inadequate. The SDEIS does not sufficiently address this issue.	WET05
18382	Additional habitat loss is also a concern for rare and endangered species.	WI01, WI02
<b>Sender Name (Submission ID)</b> Elizabeth Hulstrand (54678)		
17868	I believe that the state of Minnesota should protect the natural resources and the beautiful, few protected areas we still have left. The new mine will definitely cause major damage to our environment.	WILD02
17871	The question is only the extent of the damage and how many millions or billions it will cost to cleanup and yet even after that it won't be the same.	FIN05
17872	Please protect the state of Minnesota and the sustainable jobs provided by people visiting beautiful natural areas in our state!	SO02
<b>Sender Name (Submission ID)</b> Elizabeth LePlatt (54713)		
18483	One of the things which concerns me most is permanent water pollution. I do not think it is good enough to base such important decisions on "probabilistic simulations," or computer models, of the effects of PolyMet's mining activities on water quality.	WR189
18485	The SDEIS states there will be water pollution and loss of wetlands. I do not understand why this would be okay for Minnesotans.	WET24
18487	I am very concerned about other effects of the mining project on the environmental balance of northern Minnesota.	CU11
18488	The long term economic impact of this project is also a big concern of mine. Would the clean up cost the State more than the economic gains of the project?	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Elizabeth Maus (39867)	
14276	This mine sends us in the wrong direction for caring for our state and it's beautiful lands, which belong to ALL Minnesotans. I hiked in Superior National Forest last year and I don't want it to be the last time.	LU06
<b>Sender Name (Submission ID)</b>	Elizabeth Olson (58032)	
19839	A state that prides itself in its lakes - the PolyMets Toxic Sulfide Mine will DEFINETLY endanger this resource.	GEN01
<b>Sender Name (Submission ID)</b>	Elizabeth Plummer (16222)	
10152	PolyMet should have a plan to reasonably clean up the water before they are allowed to proceed.	WR130, WR143
<b>Sender Name (Submission ID)</b>	Elizabeth Sivertson (42863)	
8873	My overall concern about the SDEIS is that it fails to show to how toxins will be kept out of the water systems leading to Lake Superior. The water "treatment" and collection systems under rock waste piles being managed by pumps at the end of 2 mile long rock piles 25 stories high seem inadequate to keep leaching toxins from entering the water ways. With the many possibilities and probabilities that those systems could fail in their goal to prevent water pollution, I believe that PolyMet's plan is inadequate. Planning to pile sulfide bearing tailings on an old LTV pit storage area (originally meant for iron tailings to drain into streams) is irresponsible.	WR021, WR111
8877	What bothers me is the unfounded claims by PolyMet to be able to collect the rain run off for treatment in a wetland rich area, to somehow "contain" the toxins and then treat them sufficiently with pumps and treatment systems that would need to be in place for as much as 200-500 years.	WR195
9398	Their models and graphs showing that the toxins will increase as these tailings piles age- leaching more toxins by many times as much in about 40 years' time .... and long after companies could be held accountable	FIN01
9406	All of the floods and accidents that could occur, and the fact that the SDEIS is inadequate in addressing such probable accidents or floods... [with no] sufficient safeguards in case of flooding, or accidents or spills addressed in the SDEIS.	PD22
9407	There are fractures in the earth below the PolyMet site, and new fractures would no doubt be created by the several times a week mine blasting.	WR012, WR016
9408	I don't believe PolyMet's plan to build a 5 mile long cement wall to bed rock would be sufficient to "hold" toxins from leaching into water systems. I can't imagine how the geological evidence showing such a water rich landscape could possibly kept out of harm's way during such an enormous mining operation.	WR018, WR019
9409	I have trouble believing that 32,000 tons of waste rock produced every day, hauled in trucks, dumped on wetlands- every day for 20 or so years, will not have ample opportunity to leach devastating amounts of sulfide content, mercury, cobalt etc.	WET24
9410	PolyMet's SDEIS shows more "hopeful" predictions of water flow than are even realistic. Since the water flow data in the models used by PolyMet are now shown to be inaccurate, I have less faith in claims of "safe levels of toxins" to be emitted by PolyMet's mine operation.	WR003, WR189
9411	PolyMet has not shown us a feasible or plausible way to both mine copper/nickel, and keep the water from getting contaminated.	PD23

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Elizabeth Sivertson (42863)	
9412	Already we have exceeded standards of water quality in mercury and sulfates in the St. Louis River, and I believe it is absolutely irresponsible to open the gate for one more mining operation- to tolerate any more mercury, no matter if it abides by current laws. PolyMet, no matter if it complies with the law, WILL add to the mercury content that already exists in the St Louis River and Lake Superior...The StLouis River still has high enough mercury content to issue health warnings of fish consumption.	WR109, WR111
9415	In Minnesota the other mining operations have hardly been held accountable to clean up their act, and the former LTV site that PolyMet will use already and still exceeds water quality standards based on the old mining operation.	WR023, WR070
9418	The Fond du Lac Tribes have been constantly having to bring lawsuits to keep the iron mining companies in compliance, or to try and get them to clean up their act already .... and this is at a very high cost to a community that has very little financial infrastructure to keep having to fight these mining corporations in order to force compliance.	CR01
9420	I have grave concerns over the loss of wetlands, the loss of wildlife corridor, the already dwindling moose population which would no doubt be impacted even further by loss of the many acres of habitat as outlined in PolyMet's SDEIS.	WET24, WI01, WI02, WI03
18108	I believe that PolyMet's plan is inadequate. Planning to pile sulfide bearing tailings on an old LTV pit storage area (originally meant for iron tailings to drain into streams) is irresponsible. What bothers me is the unfounded claims by PolyMet to be able to collect the rain run off for treatment in a wetland rich area, to somehow "contain" the toxins and then treat them sufficiently with pumps and treatment systems that would need to be in place for as much as 200-500 years, their models and graphs showing that the toxins will increase as these tailings piles age- leaching more toxins by many times as much in about 40 years time ....	GT01, WR018, WR131
18109	There are not sufficient safeguards in case of flooding, or accidents or spillsaddressed in the SDEIS. PolyMet's SDEIS shows more "hopeful" predictions of water flow than are even realistic.	PD22
18110	Since the water flow data in the models used by PolyMet are now shown to be inaccurate, I have less faith in claims of "safe levels of toxins" to be emitted by PolyMet's mine operation. PolyMet has not shown us a feasible or plausible way to both mine copper/nickel, and keep the water from getting contaminated. Already we have exceeded standards of water quality in mercury and sulfates in the St. Louis River, and I believe it is absolutely irresponsible to open the gate for one more mining operation- to tolerateany more mercury, no matter if it abides by current laws.	WR003, WR109
18111	The Fond du Lac Tribes have been constantly having to bring lawsuits to keep the iron mining companies in compliance, or to try and get them to clean up their act already .... and this is at a FEB 2 2014 very high cost to a community that has very little financial infrastructure to keep having to fight these mining corporations in order to force compliance.	SO02
18113	According to the Minnesota Environmental Rights Act, each person is entitled by right to the protection, preservations and enhancement of air, water, land, and other natural resources. I have grave concerns over the loss of wetlands, the loss of wildlife corridor, the already dwindling moose population which would no doubt be impacted even further by loss of the many acres of habitat as outlined in PolyMet's SDEIS.	WI05
<b>Sender Name (Submission ID)</b>	Elizabeth Swarthout (25002)	
15128	[Lake Superior] is one of the few fresh water lakes that still has relatively clear water, relatively non-toxic fish and wildlife that is not seen in other areas of the country and that is threatened by environmental pollution. Please consider the long-term health of the region in preference to a short-term economic gain.	HU03
<b>Sender Name (Submission ID)</b>	Elizabeth Treher (11633)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elizabeth Treher (11633)		
2319	p11 Exec Summary: When and how (and who) will do the research to prove that a transition from mechanical to non-mechanical treatment (of water) is/will be safe and effective? What proof do you have of the accuracy of the simulation modeling potential pollution	PD06, PD24, WR137, WR189
2319	p11 Exec Summary: When and how (and who) will do the research to prove that a transition from mechanical to non-mechanical treatment (of water) is/will be safe and effective? What proof do you have of the accuracy of the simulation modeling potential pollution	WR112, WR120
2320	Pg 24: This project projects 200 y (mine site) 500 y (plant site) required for treatment, maintenance, and monitoring. This indicates a very long term costly pollution issue in the best case. In a wetlands environment that created as the mine is backfilled and flooded- these simulations are likely to be quite wrong.	PD01
2320	Pg 24: This project projects 200 y (mine site) 500 y (plant site) required for treatment, maintenance, and monitoring. This indicates a very long term costly pollution issue in the best case. In a wetlands environment that created as the mine is backfilled and flooded- these simulations are likely to be quite wrong.	PD01
2321	What contingencies and what costs are estimated and acquired up front so that taxpayers whose properties lose value and others are protected?	PER06, WR039
2321	What contingencies and what costs are estimated and acquired up front so that taxpayers whose properties lose value and others are protected?	FIN05, FIN10
2322	“Polymet would monitor environmental conditions to ensure...meet all goals set in the permits”Polymet should not do this. It should be done by an external organization*. I have proof that Polymet has lied about water (usage) in the S. Kawishawi- why should we believe them about anything.	PD24
2322	“Polymet would monitor environmental conditions to ensure...meet all goals set in the permits”Polymet should not do this. It should be done by an external organization*. I have proof that Polymet has lied about water (usage) in the S. Kawishawi- why should we believe them about anything.	PD24
<b>Sender Name (Submission ID)</b> Elizabeth Urban (54518)		
19406	the cutting of the forest at the North Met project critically jeopardizes the water rich, boreal habitat of northeastern Minnesota.	VEG03
19407	This mining is known to destroy wetland habitat in perpetuity. Scientific evaluation states that wetland restoration is ineffective.	WET24
19408	The SDEIS is flawed.	NEPA15
19409	Lake Superior, precious fresh water lake, is downstream of the Poly Met project and will be affected by pollutants from mine runoff.	WR111
19410	More than 85% [of lakes in MN] officially were impaired. Sulfide mining will further impair the water--ground, lakes, rivers, marsh, bogs, and ponds in this water rich area of our planet.	WR107, WR108, WR109
<b>Sender Name (Submission ID)</b> Elizabeth Vance (30256)		
13855	Lake Superior is one of the most beautiful and natural places left in our province. It is a place where there is still a home for comment period be extended to 180 days, and I support the animals we love. It is a place we can go to and get back to a peaceful, healthy environment. Don't destroy such a beautiful spot	LU06

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Elizabeth Yoder (37881)		
13728	Mining for precious metals in this water-rich environment could destroy it...	WR115
13729	Polymet's proposed NorthMet mine project should not be permitted because the risk to the environment is so great. The SDEIS admits this and proposes to deal with the results, but I, along with many others, do not believe either that it can be done or that Polymet has the financial resources to do it.	FIN01
<b>Sender Name (Submission ID)</b> Ellen Brown (9539)		
184	Please don't risk the environmental health of northern Minnesota and Lake Superior by permitting sulfide mining in the region	PER35
<b>Sender Name (Submission ID)</b> Ellen E Shelhon (57242)		
17366	I am strongly opposed to the Polymet project because there has never been copper nickel mine operation that has not significantly and permanently damaged our precious environment.	PER35
<b>Sender Name (Submission ID)</b> Ellen Hawkins (11560)		
3235	It would be great if you guys could extend the comment period. I am really struggling trying to get thru it – and then the understanding!	NEPA07
3235	It would be great if you guys could extend the comment period. I am really struggling trying to get thru it – and then the understanding!	NEPA07
7506	The document says that 912.5 acres of wetlands located within the NorthMet Project area would be permanently destroyed	WET24
7508	Yet it turns out that the document's flow modeling is faulty. According to the DNR, the average flow of the Partridge River is 1.5 cubic feet per second (CFS), while the SDEIS model uses a 0.5 CFS average flow (...) water will travel through bedrock (...) It is just wishful thinking to assume that water movement through bedrock is 0.	WR003
7514	The SDEIS improperly discounts the important of mercury pollution (...) and even plans not to evaluate it as one of the constituents discharged into the Partridge and Embarrass Rivers (...) All waters potentially impacted by the PolyMet operation already exceed water quality standards for mercury (...)	MERC04, MERC16
7516	The north-south movement of many species across the Iron Range has long been difficult, and this new project would destroy one viable corridor.	WI03
7519	Copper, nickel, mercury and others will be constituents of the dust riding from the mine site (...) There would also be significant local deposition, with as much as ¼ of its settling directly on adjacent rivers and streams.	AIR09
7522	An operation that would generate new greenhouse gas emissions amounting to nearly .5% of all of the state's emissions, with arguably insignificant benefits, should not be permitted.	AIR01
7530	The SDEIS includes no plans for dealing with the kinds of failures and mishaps that routinely occur in mining operations. And because the provisions regarding financial assurance are so plainly inadequate, the SDEIS does not tell us how the costs of responding to such failures will be covered. This has huge implications for how much it will cost to maintain all the systems necessary to handle the contaminated water – for perpetuity.	FIN01, FIN05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Ellen Hawkins (11560)	
7531	But it looks to me as if the entire proposed action, if carried out, would be in violation of the Minnesota Environmental Rights Law.	PER35
18713	The document fails to analyze the cumulative impact of similar deals involving transfers of public lands and access to minerals to the mining and drilling extraction industry across the nation.	CU10
18714	The SDEIS does not show that the transfer of 6,650 acres of the Superior National Forest (SNF) to NorthMet is in the public interest. It does show that the exchange would not be good for the health of the land USFS is entrusted to care for. With the possible exception of the MacFarland Lake parcel, which the SNF would acquire, there does not appear to be any benefit to the Forest or the public.	LAN01
18720	Wetlands that would be harmed or destroyed by the PolyMet mine are part of the headwaters of Lake Superior, and recognized by many people and by the EPA as being water resources of national and international importance. The USACE should deny the Section 404 Clean Water Act Permit that would allow wetlands destruction in the Superior National Forest.	WET19
18722	I find nothing in the document that adequately addresses what these permanent losses [of biodiverse wetlands] would mean to the ecosystem, and to us.	WET05
19449	The PolyMet SDEIS should include a documentation of the time and money the Superior National Forest has invested in this exchange over the past decade and show how that weighs against impacts to ecosystem components and benefits/losses to the public...	LAN01
19450	...the document's flow modeling is faulty...the water modeling needs to match conditions in the real world.	WR058, WR071, WR086, WR087, WR088, WR091, WR092, WR093, WR096, WR098
19451	The complex hydrologic system underlying and surrounding the operations sites is not adequately described in the document or its technical reports...	WR023, WR071, WR087, WR098
19452	The technical content of the SDEIS, the Water Modeling Data Package, and other supporting information, is extremely hard for an ordinary citizen like me to understand, but it looks like the writers juggled factors so that the end result would be a rosy picture of no significant impact.	NEPA07
19453	Questionable strategies include using the natural presence of a substance in the environment (such as aluminum) to allow or ignore discharge of this substance by PolyMet; siting evaluation points along the Partridge River in such a way that no exceedance of standards can be shown; failing to site evaluation points where they are clearly called for; using the varying degree of "hardness" of the water to mask its discharge (such as lead).	WR064, WR071, WR072, WR083, WR107, WR108, WR177
19454	The SDEIS improperly discounts the importance of mercury pollution that would be generated by the project.	MERC17
19455	PolyMet must analyze the amounts of mercury that would enter both the Partridge and the Embarrass Rivers.	MERC16
19456	Wetlands lost or degraded by the project will no longer function to bind up mercury as they do now; as far as I can tell that deterioration of an important ecosystem function has not been analyzed, as it should be.	MERC09, WET07
19459	The SDEIS projection that the project will not increase sulfate levels is supported only by the faulty water flow models...The SDEIS should analyze impact to these resources [St. Louis River Watershed, wild rice, and fish] across a realistic range of discharge levels for sulfates and mercury.	AQ05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ellen Hawkins (11560)		
19461	...the SDEIS must analyze alternatives that could reduce wetland loss and water pollution.	ALT06, ALT13
19464	I don't believe the DSEIS examines how the project would impact existing transportation corridors and their current users, or potential new routes...	SO04
19466	Light pollution...obliteration of countless features of the night sky...should be analyzed.	LU04
19468	It seems shortsighted to fail to study the likelihood that this mine would produce the same dangerous fibers [asbestos-like] found in nearby mines that have caused such misery and expense.	HU01
19470	...the provisions regarding financial assurance are so plainly inadequate...	FIN08
19473	The SDEIS provides no details on the impacts to water quality, wildlife, or human health if the water treatment system ceases operations at some time during the 500+ years during which the polluted water is being discharged.	HU03, WI04
19476	[The SDEIS] lacks basic information as to the costs of various treatment, containment, abatement, and mitigation measures...The lack of analysis of the likelihood of unforeseen problems...contributes to the failure of the SDEIS to provide what is needed.	FIN05, FIN11
19478	Please revise the SDEIS so that it shows calculations used to reach specific estimates of costs of closure and perpetual treatments, and how funds will be held so that they are available across the decades and in the case of bankruptcies.	FIN01, FIN05
19481	Please revise the document to include a detailed cost/benefit analysis that includes costs such as the loss of jobs associated with tourism and a healthy environment; declining quality of life in our region leading to depressed real estate values; taxpayer subsidies for the industry in the form of infrastructure development and tax breaks.	SO02
19485	Tribal rights to hunt, fish, and gather under the 1854 Authority would be impacted by the proposed action, and these must be included in a cost/benefit analysis as well.	CR01
19489	It looks to me as if the entire proposed action, if carried out, would be in violation of the Minnesota Environmental Rights Law.	PER35
<b>Sender Name (Submission ID)</b> Ellen Jones (46066)		
14573	Please revise the PolyMet NorthMet SDEIS to accurately and clearly predict the length of time that active water treatment would be required, and to clarify whether hundreds of years of water treatment complies with Minnesota Rules [6132.3200] requiring that mines be "maintenance free" at closure... The [NorthMet] mine plan calls for hundreds of years of maintenance and operating active water treatment plants, and violates this rule.	PER04, WR035
14576	Revise the SDEIS to clearly state how long the need for active water treatment (reverse osmosis or other mechanical treatment) is predicted, according the models used in the SDEIS. Extend the water model timeline as far as needed to show when all pollutants would meet applicable water quality standards and provide the public with a clear statement of the best available prediction for the time frame of mechanical water treatment.	WR036
14577	Revise the SDEIS to address Minnesota Rules 6132.3200 and clarify how the post-closure activities described in the mine plan are consistent with the mandate that the closed mine site be "maintenance free."	PER04
14579	How will wildlife survive with polluted water?	WI04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ellen Jones (46066)		
14581	Who cares if there were jobs in this decade if the area is toxic in the next decade? The benefits of a few hundred jobs are simply just not worth these costs.	SO01
<b>Sender Name (Submission ID)</b> Ellen Lease (47780)		
8643	If it is true that this effort will produce only 90 highly technical jobs that locals will likely not be prepared to fill, it does not significantly decrease levels of unemployment in that county.	SO02
8645	If the estimates that water quality could be negatively impacted for as long as 500 years is accurate, there is no benefit to Minnesotans for allowing this to proceed. There is, in fact, great detriment.	WR195
<b>Sender Name (Submission ID)</b> Ellen Mork (43105)		
10088	This mine would destroy over 900 acres of high quality wetlands and indirectly harm up to 8,264 acres... It is my understanding that there has been no plan produced for the mitigation of the loss of these wetlands, according to Minnesota law.	WET01, WET04
10091	I have also learned that PolyMet plans to use the existing unlined tailings basin used for iron ore to hold the tailings from the sulfide ores. This is a plan for distribution of the sulfuric acid into the local streams, lakes and underground water supplies. It would be dangerous for those living within the range of these waters, as well as the fauna and flora in the vicinity.	WR060, WR108
10092	Since there are rivers near the mine and plant sites that flow into the St. Louis River, it is obvious that these rivers will all be polluted with acid mine drainage [and]... the St. Louis River is already heavily polluted.	WR109, WR111
10094	Regardless of the inflated figures provided by PolyMet for new jobs in the region, experts know that the numbers are more like 350-400, many of whom would be "imported" from Canada and other regions...The number of jobs available to Minnesotans of the Range will be minimal.	SO06
10117	I understand that this SDEIS still does not contain financial assurances of funding to cover the 200-500 years of required clean-up that will continue to be needed to ensure that Minnesota taxpayers are not left holding the bag.	FIN01
10118	Geologists have reported the existence of underground fractures that could increase in number by the blasting that would occur to break up the sulfide ores. Each fracture would have the possibility of transporting pollution into the ground water. I can see no mitigation from this problem	WR016
11406	[PolyMet] must be required to line that [existing tailings] basin!	PD10
11418	Minnesotans are recommended not to eat more than a certain number of fish caught in these waters due to the level of contamination. Adding more cannot help the situation!	MERC02
11424	the PCA has postponed their decision on sulfate levels in wild rice waters. I have no idea how this decision might impact the conclusions of the DNR, but I would suggest that when standards are still undecided, decisions pertaining to those standards ought not be concluded.	WR164
11429	The Arrowhead and surrounding areas have had remarkable success with tourism, an economic sector which would certainly decrease as mining increases. Tourists don't want to come and fish and hunt in areas with declining water quality and increasing pollution.	SO02
<b>Sender Name (Submission ID)</b> Ellen Nore (29076)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ellen Nore (29076)		
10978	We need to think of the future and not to bow to corporations seeking immediate profit at the long run of great costs to our nation. Pollution from sulfide mining is very harsh and TREATMENT for this pollution would have to last for 500 years.	SO01
10979	We must NOT SUPPORT sulfide mining near this region, which houses supplies of clean, precious water for future generations.	WR195
<b>Sender Name (Submission ID)</b> Ellen Peterson (47457)		
17879	My main concerns with the Poly Met NorthMet SDEIS are with the issue of protecting our water. As a citizen of the state of Minnesota who recognizes the significance of our geographic location – our proximity to an incredible source of fresh water, not to mention our Boundary Waters Canoe Area Wilderness, it is entirely unacceptable that my government – in this instance the DNR who is responsible for completing the environmental review process as well as for issuing the permits, would even consider taking such a massive risk without knowing for certain the outcomes.	WR195
<b>Sender Name (Submission ID)</b> Ellen Root (43074)		
10011	Tribal hydrologists and MDNR staff have determined that the base flow rate of water in the Partridge River is two to three times higher than the number used in the SDEIS. The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed.	WR003
10013	Minnesota Rules 6132.3200 requires that the mine site must be maintenance-free at closure, but the PolyMet mining plan calls for at least 500 years of active water treatment.	PER04
10014	The SDEIS also fails to assess the impacts of possible slope and dam failure at the mine site waste rock piles and the tailings piles. The SDEIS must be redone to include assessments of possible pollution and other impacts resulting from failures at either of these sites.	GT07, GT15
10015	The SDEIS does not discuss the impact of the loss of jobs when the price of copper declines and mining becomes unprofitable, although it acknowledges that such job loss is inevitable. ... The SDEIS must be redone to assess the cost of unemployment benefits and other social services, increased crime rates, and other societal costs associated with volatility in employment at the mine.	SO04
15412	The SDEIS provides no details on the impacts to water quality, wildlife, or human health if the water treatment system ceases operations at some time during the 500+ years during which the polluted water is being discharged.	WI04, WR128, WR129
15413	The SDEIS must be redone to include detailed financial assurances of how Polymet will continue to monitor and maintain its water treatment system over this 500-year span.	FIN01
<b>Sender Name (Submission ID)</b> Ellen Thomas (38600)		
14059	The proposed copper/nickel sulfide mine... is virtually certain to pollute vast areas of wetlands--wetlands which are disappearing all over the country, and with them important habitat, water filtration, and other ecological services.	WET24
14060	...the history of this industry is one of making big messes, declaring bankruptcy, and then letting the taxpayers take on the clean-up bill.	FIN01
<b>Sender Name (Submission ID)</b> Elli King (18310)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elli King (18310)		
4172	My understanding is that any significant increase in sulfates in our water will inhibit the growth of wild rice.	VEG04
4173	And that sulfates are a key component in the accumulation of you mercury in fish.	MERC02
4175	While the EIS does speak to this issue as being controlling sulfate, the EIS is incomplete. At best I feel that further hydrological research and more developed refined filtration systems need to be explored.	WR143
4177	Also, I have intimate information that the base flow of the Partridge River was miscalculated for this EIS. And I don't think there's been time to investigate that yet, but I would ask of you that you investigate that, please.	WR003
12810	Fish and wild rice and ducks who live on rice as they migrate in the fall are food staples of my family as well as that of many others in my community. I have a real founded fear of not being available to us anymore.	SO02
<b>Sender Name (Submission ID)</b> Ellie Hofman (4347)		
1804	I am concerned about the sulfide mining polluting our lakes ... There have been no sulfide mining attempts that have not polluted water systems.	WR023
1805	the cleanup could be left to all the taxpayers. Companies like Polymet have reputations of running out of money on the mining then leaving the cleanup to the taxpayers.	FIN01
1806	To me ruining our water systems and ecosystem is not worth the temporary jobs and metals	SO01
<b>Sender Name (Submission ID)</b> elliot (46507)		
9121	I have also been an ardent fan and user of the Boundary Waters, camping and canoeing for over 40 years. I see no evidence that this project will change the nature of the surrounding area.	PD28
9123	I feel the benefits of this project are enormous. I have friends and relatives that live in the area, and they are all wholeheartedly behind the project. These are people who have been involved in mining in the area for generations, but are also a part of the land and want it to remain clean. They don't feel that there's a risk that they will have their backyards polluted.	SO04
<b>Sender Name (Submission ID)</b> Ellyn L Wiens (58078)		
19868	There has never been a non-polluting copper/nickel mine such as Polymet proposes.	PD26
<b>Sender Name (Submission ID)</b> Elsie Dyke (31855)		
13847	We need to save [the Great Lakes] from being contaminated by mining. It is not worth the sacrifice of our lakes so that a large company can earn a lot of money.	SO01
<b>Sender Name (Submission ID)</b> Elton Brown (15535)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Elton Brown (15535)	
696	The Minnesota Environmental Rights Act states that economic considerations alone cannot justify the destruction of our precious natural resources. Clearly the PolyMet plan will result in environmental destruction and degradation (loss of valuable wetlands, loss of an important wildlife corridor, the huge amount of electrical energy needed, and the seemingly-inevitable long-term leakage of heavy metals and toxic water).	NEPA09
698	Where are the company’s assurances of wage levels and benefits? Should there not be a realistic analysis of how many jobs will be offered to Iron Rangers ...? Further, is there any way to hold PolyMet (and its parent corporation) legally obliged to fulfill its promised local hires and wage levels?	SO06
702	If we permit this industry ..., should we not raise the meager percent of taxes they will return to the state? ... It makes no sense to sell off these world-class non-renewable resources so cheaply.	SO04
704	Will PolyMet be willing to set aside enough money to completely pay for the monitoring of containment barriers, the quick repair of leaks caused, say, by some unexpected flood or earthquake of the century, the maintenance (and eventual replacement) of reverse osmosis installations, etc?	FIN05, FIN11
705	Should not the public be told now how this huge sum of money will be paid and held safely in escrow for future maintenance and clean-up? Why is the SDEIS so vague on this critical and thorny issue? Any short-term financial benefits to Minnesotans will be more than negated in the long run if clean-up costs fall yet again on taxpayers.	FIN01, FIN10
707	I also wonder if there is a way to hold the parent corporation legally responsible for future clean-up costs once the PolyMet subsidiary declares bankruptcy or simply dissolves when the North Met project is no longer profitable?	FIN01
708	The PolyMet PDEIS is inadequate in its failure to include an analysis of the costs of this mining proposal to the local economy. Is there a realistic estimate of lost income from tourism, fishing and hunting licenses, etc, should a large hunk of the Superior National Forest be lost to heavy industry?	SO02
709	Also, what protections and compensations are in place for the well water and air quality of the rural Babbitt and Embarrass homes which are just a few miles north of the project? Will the mining corporation have the requirement and the assets to purchase private properties whose value and livability are compromised by the PolyMet operations?	SO03
710	Does the SDEIS adequately disclose how much fuel will be burned by the huge shovels, trucks, and machinery used in the extraction, crushing, and transportation systems? Are the emissions of these vehicles added into assessment of the impact of the project to our air quality and haze? ... does the SDEIS include adequate safeguards for the transportation and storage of gas and oil (as well as any other toxic agents used in the mining process)?	AIR10
711	Similarly, does this SDEIS adequately factor in the extra emissions put into our atmosphere by the power plants which must produce the huge electrical energy demand of the project?	AIR02
714	Given that many children on the North Shore already have higher than average mercury levels, how can we allow the PolyMet plan to be so vague on the amount of mercury they will be adding to the environment?	SO01
716	Given the recent revelation that the Partridge River actually carries a much larger average flow than the numbers used in the SDEIS modeling, should not the company at the very least redo its environmental impact predictions by using more accurate data?	WR003
718	should not the SDEIS include more details on what will happen when natural water levels are high? Specifically, when the mine experiences torrential rains ..., can we be assured ... that PolyMet has a foolproof plan to avoid all unwanted discharges during the ever-more-frequent “storms of the century”?	WR057, WR077, WR180, WR193

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Elton Brown (15535)		
719	what assurances are in place to guarantee that budgets for timely monitoring will not be lowered but rather be raised to cover adequately the increased need of government regulation?	PER03
720	What assurances do we citizens have that, should violations occur during the NorthMet project, the regulatory agencies will act quickly to shut down the mine until the problems are fixed (rather than issuing variances to allow the violations to continue)?	PER06
723	in the long run the increasing noise, traffic, haze, and escaping toxins will make this area less attractive, leading to a loss of population. ... Economic and population gains due to copper/nickel mining will be short-lived at best. How is it in our self-interest to put our growing diverse NE Minnesota economy at risk for the sake of the boom-and-bust extraction of non-renewable natural resources?	SO01
1903	This huge new kind of mining in Minnesota will require more site inspections and testing, by the DNR and other regulatory agencies. In this time when many politicians want to trim government taxation and spending, what assurances are in place to guarantee that budgets for timely monitoring will not be lowered but rather be raised to cover adequately the increased need of government regulation?	PER03
1904	What assurances do we citizens have that, should violations occur during the NorthMet project, the regulatory agencies will act quickly to shut down the mine until the problems are fixed (rather than issuing variances to allow the violations to continue)?	PER03
1905	As a very concerned property owner and tax payer of NE Minnesota, I ask you to not risk citizens' long-term health and investments for the sake of uncertain short-term financial gains. Please reject the PolyMet SDEIS.	SO01
<b>Sender Name (Submission ID)</b> Elwood & Bonnie Swanson (42777)		
6733	...acid rain and toxic metals could pollute rivers and groundwater for hundreds of years. ...bad water quality due to seepage from the mining operation site, acid mine drainage	WR115
6737	... bad water quality due to seepage from the mining operation site, acid mine drainage etc to the St. Louis River and surrounding areas affecting wild rice which is especially important to the Native Americans, negatives for the wild life population, i.e., moose, lynx, deer, etc., asbestos like materials released to the water and air affecting human beings and destruction of wetlands and surrounding areas.	VEG04, VEG06, WET24, WI01
<b>Sender Name (Submission ID)</b> Elyse Dornhecker (4285)		
10743	The economic development [PolyMet] will bring, while paving the way as the benchmark for clean, environmentally friendly mining, shows that collaboration is key to moving our state forward as an economic, industrial, and conservationist leader in the US.	SO10
<b>Sender Name (Submission ID)</b> Emily Barter (44108)		
8013	[PolyMet plans] to mine for a short period of time, but in so doing cause nearly irreparable damage to a critical environment...I understand that the creation of jobs is very important right now, but the environmental and monetary cost of this project is not worth it.	SO01
14904	The massive funds that would be necessary to clean up the environment in the wake of this mining could even be used to much greater effect on public works projects to employ Minnesotans in more productive ways!	FIN10
<b>Sender Name (Submission ID)</b> Emily Brown (36464)		
3801	PolyMet's open pit form of copper/sulfide mining involves destroying hundreds of acres of wetlands in the Partridge River headwaters.	WET24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Emily Brown (36464)		
3803	The US EPA notes that these wetlands may qualify as “aquatic resources of a national importance”. That designation would require a higher level of protection than is currently planned.	WET19
3804	Since PolyMet’s mine plan did not consider any alternatives to reduce wetland destruction and water pollution, it is doubtful that any such solutions would be found.	WET20
3805	Any plan such as PolyMet’s needs to take a more serious approach to accommodate extreme weather and inform the public on how they will prevent torrential rainfall from bursting dams and overflowing waste storage basins.	GT02
3806	an environmental impact statement that is responsible to future generations of Minnesotans needs to take into account the big picture of climate change and the long-term effects of adding an intensive industrial operation to our already-endangered waters, forests, and air.	AIR01, WR115, WR180
14259	The increase in CO2 parts per million pertains to the larger amounts of electrical energy that this kind of mining requires...In addition, the fuel used by the huge trucks and heavy equipment proposed would add even more CO2 to the air we breathe. PolyMet’s project should be postponed until we have energy sources that are not dependent on coal and gas.	AIR01
14260	There is already an issue of haze in the BWCAW. The problem of clean energy needs to be solved before PolyMet adds to the current level of pollution. The SDEIS needs to address this aspect of the project’s environmental impact.	AIR01
<b>Sender Name (Submission ID)</b> Emily Dayton Slowinski (54566)		
18967	I am very concerned about the effects of the proposed PolyMet mine on our environment. No matter how you slice it there will be destruction of acres & acres of wilderness to begin with and extensive lasting negative effects for years afterward.	WILD02
<b>Sender Name (Submission ID)</b> Emily Gardner (14972)		
13808	There has never been a sulfide mine that has not polluted its surrounding environment. Now Polymet wants to bring this dangerous type of mine to Minnesota. Sulfide mining has never before been conducted in the state of Minnesota and after review of the SEIS it must be concluded that this risky project cannot be conducted in a safe and trustworthy manner.	WR023, WR195
<b>Sender Name (Submission ID)</b> emily gherity (15251)		
395	I find it beyond belief that Minnesota is contemplating such a disastrous mining scheme when all of our waters and natural resources are under siege from zebra mussels in Mille Lac and Superior to Asian carp moving up river to moose die-off due to global warming.	WI01
396	This mine would be planted on top of the Superior watershed, a body of water already damaged by earlier economic exploitation.	WR107, WR108
397	350 jobs would not justify this failure of stewardship nor would 35,000 jobs. At any rate, the alleged jobs are temporary and, as always when the job argument is used, it is a fig leaf for the millions, conceivably billions of dollars which will flow into the pockets of foreign investors and perhaps a few adroit members of the iron range mafia.	SO01
398	I know this thing will go forward and I know there will be a catastrophe and that taxpayers will pay for it	FIN10
<b>Sender Name (Submission ID)</b> Emily M Brown (54671)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Emily M Brown (54671)		
17885	PolyMet's open pit form of copper/sulfide mining involves destroying hundreds of acres of wetlands in the Partridge River headwaters. Most of these wooded wetlands are of high quality and are key to providing mitigation for flooding, food for fish downstream, and maintaining water quality downstream. Also, these wetlands are an important habitat for waterfowl, moose and other wildlife. The US EPA notes that these wetlands may qualify as "aquatic resources of a national importance". That designation would require a higher level of protection than is currently planned.	WET19
17886	Thousands more [wetland] acres would be indirectly harmed by air and water pollution and by the redirecting of water that is needed to support wetlands. PolyMet does not plan to include compensation for these thousands of acres that would be indirectly harmed. Their "wait and see" approach means agencies may or may not mitigate later.	WET01
17887	Since PolyMet's mine plan did not consider any alternatives to reduce wetland destruction and water pollution, it is doubtful that any such solutions would be found.	ALT06, ALT13
17888	All reputable climate scientists tell us that extreme weather, long periods of drought, and events such as Duluth's dramatic flooding two years ago are the new normal. Therefore, I submit that new public policy should place an ever higher value on clean water, which is our greatest natural resource here in northern Minnesota. Any plan such as PolyMet's needs to take a more serious approach to accommodate extreme weather and inform the public on how they will prevent torrential rainfall from bursting dams and overflowing waste storage basins.	WR077
17889	we must stop the growing reality of climate change. The increase in CO2 parts per million pertains to the larger amounts of electrical energy that this kind of mining requires. At this point that energy source would be mostly coal. In addition, the fuel used by the huge trucks and heavy equipment proposed would add even more CO2 to the air we breathe. PolyMet's project should be postponed until we have energy sources that are not dependent on coal and gas.	AIR02
17890	There is already an issue of haze in the BWCAW. The problem of clean energy needs to be solved before PolyMet adds to the current level of pollution. The SDEIS needs to address this aspect of the project's environmental impact.	CU11
17891	an environmental impact statement that is responsible to future generations of Minnesotans needs to take into account the big picture of climate change and the long-term effects of adding an intensive industrial operation to our already endangered waters, forests, and air.	PD22
<b>Sender Name (Submission ID)</b> Emily M. Kindelshire (43132)		
15859	Too many decisions are made with only the short term benefits in mind- economic gains, increased employment etc. What about the children who will be born in 25 years? 50 years? 75 years? 200 years? What will be left for them? What do we want to leave for them to ensure their success and survival?	SO01
<b>Sender Name (Submission ID)</b> Emily Mashuga (51502)		
13180	Metals like: copper and nickel, etc. are notoriously good materials for recycling and they maintain their integrity very well, even after being recycled many times. That option (recycling) should be the one we all start turning to, to get these metals Polymet (and manufacturers) want. Instead of constantly digging up virgin materials, when we already have the materials needed (to make a lot of things) wasting away in landfills.	NEPA06
13183	I love the Boundary Waters and the wildness and purity it represents, and I'd hate to see that ruined that so we can make more iPhones and cheap electronics. Some things are just more important than other things in life, and safe clean lasting water is much more important than making more DVD players and cell phones.	WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Emily Mashuga (51502)		
13698	Metals like: copper and nickel, etc. are notoriously good materials for recycling and they maintain their integrity very well, even after being recycled many times. That option (recycling) should be the one we all start turning to, to get these metals Polymet (and manufacturers) want. Instead of constantly digging up virgin materials, when we already have the materials needed (to make a lot of things) wasting away in landfills.	NEPA06
<b>Sender Name (Submission ID)</b> Emily Onello (47643)		
14629	The PolyMet NorthMet SDEIS contains inadequate analysis of risks to public health from the proposal. The DNR should conduct a health impact assessment (HIA) to fully analyze the public health implications of PolyMet's proposed mine.	HU01
14631	Conduct a health impact assessment for the PolyMet project, and include the results of the assessment in the EIS. The HIA should include examination of all aspects of public health affected by the proposal, including analysis of the social determinants of health.	HU01
<b>Sender Name (Submission ID)</b> Emily or Ken Steil (10712)		
583	The mining company is not mentioned as having any responsibility for this though it is likely the company will not exist at that point.	FIN01
584	Page 5-7 goes on to say there will then be a 200 to 500 year period that some sort of treatment will need to continue. That is too big a window and too long a time period to lay out at this point. It suggests that what will happen is not known and will be determined and addressed as the years roll along.	PD03, WR035
1473	The way to proceed at this point would seem to be to dump category one tailings into the west pit as is being done with east pit.	PD15
1474	But page 5-6 also says a certain mechanical treatment process will only be used the first forty years, what happens after that is not made clear except to say treatment would shift to some non-mechanical form to be determined at that time with no definitive statement that mechanical treatment will not be needed longer.	PD06
1476	It suggests the technology is not in existence yet. It is likely the project will proceed in the future as mining techniques catch up.	PD32
<b>Sender Name (Submission ID)</b> Emily Ostercamp (14944)		
265	As a result the companies that are suppose to manage the cleanup go bankrupt. The taxpayers may be stuck paying for the what wasn't taken care of.	FIN01
266	Knowing copper mining has a chance of increasing it [risk of cancer] is a definite red flag and should not be pursued.	HU05
267	The copper mines will produce water that will harm and could even put some what of an end to this tradition [wild rice harvesting].	CR01, WR156
<b>Sender Name (Submission ID)</b> Emily Swanson (16170)		
9728	The mining company suggests that the PolyMet mine will be an economic benefit for Minnesota, and they could not be more wrong. Mining companies have historically left citizens with the clean up after the company has extracted its profit.	FIN10
<b>Sender Name (Submission ID)</b> Emily Wartman (11637)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Emily Wartman (11637)		
2330	A few people will get rich from this mining venture. A lot of people, and the environment we love, will pay a great deal.	SO02
2330	A few people will get rich from this mining venture. A lot of people, and the environment we love, will pay a great deal.	SO02
<b>Sender Name (Submission ID)</b> Emily Wilkie (54214)		
17662	[The mine would be] in the boundary waters which should remain UNHARMED.	WILD02
17663	This [mine] remove wetlands and harm the animals and wildlife here.	WET24
17664	I believe it will do more harm to the environment than good. This is very clean pure water that would be polluted and wasted. We already have a water shortage in our lives today and since I am a part of the generation of the future, I do not want my water supply to be polluted.	SO02
<b>Sender Name (Submission ID)</b> Emma Liedtke (54226)		
16742	The SDEIS maps are incorrect. When Poly-met redrew the maps, they left out half of the whole 100 mile swamp. Because of this incorrect modification the BWCA has been left completely unprotected from the acid mine drainage. A correct environmental impact statement with correct geography is required. I would like the maps in the SDEIS (Supplemental Draft Environment Impact Statement) to be re-drawn and corrected. I would like the percolation rate in the swamp to be measured also.	PD38
17360	Governor Dayton needs to talk to the MN DNR and address the task at hand. He needs to make the MN DNR do their job correctly and provide a geographically correct environmental impact statement that has correct financial information, the whole 100 mile swamp and other missing geography, correct hydrology studies, and water pollution modeling data that will tell how long it would take for toxic metal concentrations to reach safe levels without requiring any reverse osmosis.	NEPA08
<b>Sender Name (Submission ID)</b> Emma Marshall (54195)		
17730	I am concerned for the condition of the boundary waters after the mining project. These waters are the purest waters that we have and they are the perfect destination for camping and canoeing. People from all over the US come to enjoy the boundary waters. There are so many things that are going to negatively affect the boundary waters and animals near this area. 99% waste is ridiculous and it is not worth mining for the 1%. You will directly be killing many animals, fish, and polluting the beautiful waters	WILD02
<b>Sender Name (Submission ID)</b> Emmett Doyle (43814)		
10559	because the mechanization of mining has reduced the number of jobs that the industry creates as well as lead to a workforce that tends to be more non-local and thus less stimulating to the economy, and because the environmental impacts of this mine could harm the tourism and recreation industries that are northern MN's inevitable future, this mine is economically the wrong choice for Minnesotan workers.	SO02
10562	the mine is roundly opposed by the indigenous community for its potential impacts on manoomin and the wider north woods ecosystem, and the wishes of the indigenous community should bear a degree of special consideration given the historical context of our state.	VEG04
<b>Sender Name (Submission ID)</b> Emmett Ramstad (10763)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Emmett Ramstad (10763)		
613	I am not at all convinced that the short term goal of mining is at all worth the inevitable pollution it will cause.	SO01
616	Nor am I convinced that PolyMet will be able to reverse the damage to water and land to it's original healthy state.	WR115
617	I am afraid the pollution will inevitably enter the near by Embarrass River and Partridge River which flows into the St. Louis River that then flows into Lake Superior.	WR111
<b>Sender Name (Submission ID)</b> Emmy White (20147)		
1739	I simply can not understand how the DNR could stand by a consider copper mining in our watershed area. To contaminate the waters for our generations to come is unthinkable.	WR115
<b>Sender Name (Submission ID)</b> Emrys Stramer (18192)		
4009	The PolyMet project would increase arsenic in Colby Lake by 38.5 percent. That is the drinking water for Hoyt Lakes.	WR043, WR123
4010	Arsenic also accumulates in fish and wild rice. Low-income people who fish and rice for food have the most cumulative risk	VEG04
4011	The SDEIS must be redone to make a cumulative assessment of arsenic and cancer risks for people in Hoyt Lakes, including people who rely on fish and rice for food.	HU01
4014	the EIS must analyze fully the impact of the PolyMet proposal on any animal or plant species relevant to any tribal property.	CR01, CR06
13428	The proposed mine is located within the 1854 Treaty on Ceded Territory, and three sovereign nations retain, never gave away, their hunting, fishing, gathering rights. Under federal case law, these rights are for the welfare and well-being of tribes, and federal caselaw provides that the ceded land must remain productive for the exercise of those rights.	CR01
<b>Sender Name (Submission ID)</b> Environmental Law & Policy Center (42967)		
5908	Because of the many significant impacts from the proposed project and flaws in the SDEIS, the Minnesota Department of Natural Resources, U.S. Army Corps of Engineers and U.S. Forest Service should deny PolyMet's state mining and Clean Water Act Section 404 wetlands permit requests and the proposed land exchange.	PER35
5910	The Minnesota Department of Natural Resources, U.S. Army Corps of Engineers and U.S. Forest Service should choose the No Action Alternative and deny the requested permits and land exchange.	PER35
5911	At the very least, the agencies must update the SDEIS with required analysis that was not included and correct other significant flaws identified in the comment process before the agencies make a decision on the proposed mine.	NEPA04
5912	Water Quality. The SDEIS and mining plan do not reasonably assure that the mine will not result in significant, irreversible water pollution. The SDEIS and mining plan model mechanical or potentially other types of water treatment as being required for at least 200 years at the mine site and at least 500 years at the plant site to prevent sulfate and other water pollution to watersheds connected to Lake Superior.... No plan is presented that reasonably assures that water treatment will be possible and effective for the stated hundreds of years at a minimum.	WR035

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Environmental Law & Policy Center (42967)		
5913	Because of long timeframes that remain unknown, there is similarly no meaningful demonstration that mine closure and reclamation will actually be possible. It is simply not reasonable to determine – as the SDEIS does – that there are no significant sulfate and mercury water quality impacts from the proposed mine when the proposed treatment is not demonstrated as effective, when the water treatment relies on models that are projecting up to 500 years into the future and when significant impacts are almost certain if the proposed treatment is not effective for hundreds of years.	WR035, WR128, WR129, WR196
5914	The agencies should deny the project on these water quality impacts alone. It is unreasonable to approve a project that requires fully functioning water quality treatment for hundreds of years into the future to avoid serious harm to Lake Superior and the watersheds adjacent to the mine. Approval on these terms would constitute arbitrary and capricious agency action.	PER35
5915	The SDEIS' Cumulative Effects assessment is incomplete because it fails to include an analysis of the cumulative impacts of regional mining affecting Lake Superior... The SDEIS's Cumulative Effects assessment includes only mining and similar projects in Northern Minnesota. At 6-15; Table 6-1. However, there are a number other current and reasonably foreseeable mines near Lake Superior in Wisconsin and Michigan's Upper Peninsula. For example, large-scale existing and proposed mines include the Penokee Mine in Wisconsin, the Empire and Tilden Mines near Marquette, Michigan and the Eagle Mine in Michigan. These mines' cumulative impacts on Lake Superior and the watersheds on which it depends must be analyzed before the agencies can determine that there are no significant cumulative effects to Lake Superior.	CU18
5916	The SDEIS' Alternatives analysis is too narrow...the SDEIS considers only one alternative other than the No Action Alternative, and that alternative is just the same proposed mine, but with a smaller land exchange acreage...Considering just one marginally different alternative is too narrow of an alternatives range to satisfy NEPA and MEPA. The SDEIS should consider additional reasonable proposed alternatives, such as an alternative analyzing an underground mining proposal and an alternative requiring back-filling the mining pits with waste-rock after closure.	ALT01, ALT03
5917	The PolyMet mine would cause serious harm to the Endangered Canada lynx and the SDEIS fails to analyze impacts to Minnesota's moose population.	WI01
5918	The mine and its related activities would also further increase the fragmentation of remaining Canada lynx habitat. However, the SDEIS fails to include alternatives that would mitigate impacts, such as alternatives minimizing new roads and traffic increases in Canada lynx habitat.	WI02, WI10
5919	[T]he SDEIS' moose analysis does not meaningfully address how PolyMet's proposal will impact moose or moose habitat. The MDNR should insist on a thorough, specific analysis for this iconic Minnesota species before it issues any mining permits.	WI01, WI02
<b>Sender Name (Submission ID)</b> eric baldus (42219)		
6686	This is an extremely dirty process and a very disruptive method of mining. The tailings that are produced are full of toxic elements.	HAZ03
6691	The number of jobs created is negligible...It is extremely short sighted to think that the jobs created would be worth the [environmental] risk.	SO01
6693	To believe that the state will be able to escrow enough money for 200+ years of water cleanup is ridiculous	FIN05, FIN08
6695	what if there is a release, what happens to the jobs that are created by fishing/recreation in the area	SO04
<b>Sender Name (Submission ID)</b> Eric Erkkila (46278)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Eric Erkkila (46278)		
8901	As a native of Northern Minnesota I have lived with and seen the economic booms and busts. A project of this type will stabilize the economy.	SO10
8902	Adding this operation to the area will provide the following to the economy:- Much needed construction jobs to build the new mine and rehabilitate the existing processing plant.- Increased sales activity for suppliers of construction commodities and services.- Increased sales for mining vendors for supplies during the mine operation. This will provide 2 jobs for every job at the mine.- Provide additional revenue for the state and local economies.- Long term employment for both miners and suppliers.- The national economy needs these raw materials to provide for the necessities and luxuries of life.	SO10
8903	On the environmental side of the issue:- The re- use of an existing processing facility and tailings basin.- Stringent controls in place for protection of the environment.	PD28
<b>Sender Name (Submission ID)</b> Eric G. Galush (21393)		
1103	This (mine)would actually help the overall world environment. Instead of importing copper and other precious metals from countries that do not practice safe and clean mining techniques, we would supply our own manufacturing organizations with materials from a miner that will practice safe and clean mining procedures.	NEPA05
1228	Polymet is utilizing an old processing plant that was just "rusting away" in the wilderness.	PD28
1230	The Polymet situation is an opportunity to "buck the trend" of losing high paying, stable jobs from the north	SO10
1240	Polymet has been working to get permits for close to a decade now. It should never take that long, in any situation, to get the approval or disapproval to do something.	PER20
<b>Sender Name (Submission ID)</b> Eric Haefner (7175)		
682	Polymet, along with all the government agencies that provided input, have shown in the SDEIS that the proposed mining operations will not negatively impact the State of Minnesota.	NEPA16
<b>Sender Name (Submission ID)</b> eric hendrickson (39182)		
12286	Three hundred fifty jobs for 20 years is not worth the risk	SO01
12287	A foreign company whose stock share price hovers around a dollar is a fool's bet for long term accountability. It is not the company but citizens who will be dealing with PolyMet's toxic legacy	FIN10
12292	We are told that new technology will obviate [problems such as poor water quality as a result of mining]. As I understand the data, this confidence in "new technology" is misplaced. As we perform our due diligence in vetting the assurances of the companies, we will be well served to err on the side of caution.	PD32
<b>Sender Name (Submission ID)</b> Eric J. Simso (58151)		
19913	Has there been a jobs trade-off analysis, mining/construction vs recreation/construction. As a Minneapolis resident and lake County taxpayer and summer resident, the relative jobs and revenue contribution of no-residents doesn't seem to be accounted for.	SO07

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Eric Kemp (44836)		
7986	I don't believe [the EIS] deals with ground water contamination to the extend that is necessary to protect this precious resource.	WR107, WR108, WR130
8009	[Materials produced by PolyMet] should read that they think they can capture up to 90% of surface water because this mine proposal is really a scientific experiment.	WR018
8011	Even if the mine were able to capture 90% of it's waste water from entering the ground water supply, the remaining 10% entering ground water represents hundreds of millions of gallons of contaminated water entering the aquifer.	WR107, WR108, WR129
8014	As bad as it would be for the proposed mine to contaminate surface and run-off waters surrounding the PolyMet mine site, it would truly be a tragedy to let hundreds of millions of gallons of water with toxic fibers and heavy metals contaminate our most precious resource, our ground water.	WR107, WR108
<b>Sender Name (Submission ID)</b> Eric Larson (9900)		
13123	It is critical that you responsibly reject the inaccurate PolyMet NorthMet SDEIS and acknowledge that PolyMet's open-pit sulfide mine plan would have enduring negative environmental impacts on surface and ground water quality past the lives of your great great great grandchildren...In absolute fact, the PolyMet SDEIS and the PolyMet sulfide mine plan still represent unacceptable risk to the incredible current and future asset of clean water that the world will value incredibly highly until well past the lives of your great great great grandchildren.	WR195
13429	In absolute fact, the PolyMet SDEIS and the PolyMet sulfide mine plan still represent unacceptable risk to the incredible current and future asset of clean water that the world will value incredibly highly until well past the lives of your great great great grandchildren. To take any risk with this, much less a high risk, demands your action to reject it.	SO01
13430	You must act to protect the environment from the money and political pressure that should not influence a thorough scientific assessment and conclusion. Your actions will have more long term impact that virtually any decision facing the state.	NEPA18
<b>Sender Name (Submission ID)</b> Eric Morrison (18177)		
3958	The wetland that PolyMet is seeking a permanent discharge into is called the 100-mile Swamp....It is an inconvenient fact that the authors of the Environmental Impact Statement simply do not want recognized that mining waste will flow to the Boundary Waters by way of the 100-mile Swamp and the Dunka River.	WR081
3959	Worse than just having the statement about the delineation of the 100-mile Swamp, they redo the maps of the 100-mile Swamp solely as to omit the part of the swamp that drains to the Dunka River. (Inaudible) this appears on page 472 of the SDEIS and at least five other maps.	WR080
3963	No baseline water testing was done in Langley Creek or in the Dunka River or any other part of the Boundary Waters Watershed. And nor would any testing be done if mining were allowed. This leaves the Dunka River and the BWCA completely and utterly unprotected.	WR081
3964	At a minimum I'm requesting Governor Dayton compel a bonded public review period of 180 days for this SDEIS; and compel a subsequent SDEIS, which has the correct geographical features in it and requires water testing for the Dunka River and the Boundary Waters.	NEPA07
8758	Mention of both the One Hundred Mile Swamp and the Dunka River as it relates to hydrology of the mine site is completely absent from the SDEIS and may be intended to obscure the impact of the proposed mining on the BWCAW wilderness area.	WR080, WR081

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Eric Morrison (18177)	
8759	Reverse osmosis its likely to be completely impractical because of short membrane lifetimes...other maintenance issues... non mechanical treatment methods proposed for the 200 to 500 year treatment are not only unproven, they do not exist today.	FIN05
10596	The safety of the Boundary Waters Canoe Area from mine drainage that will be created by PolyMet’s proposed NorthMet mine has not been established. The [SDEIS] ...makes no adequate statement about whether water discharged from the mine site can possibly enter the [BWCA] Wilderness ...Without a definitive statement and data about mine waste and the BWCA, the NorthMet Project SDEIS is inadequate.	WR081
10620	The proposed mine site is just south of and uphill from a wetland area named the One Hundred Mile Swamp which drains to both the Saint Louis River watershed and the Rainy Lake (BWCA) watershed. Because the mine site drains to the One Hundred Mile Swamp and the One Hundred Mile Swamp is geographically connected to the BWCA, the mine cannot possibly be isolated geographically from the BWCA. Hydrologically, the SDEIS includes no hydraulic conductivity testing for the One Hundred Mile Swamp which would indicate the extent to which the mine is hydrologically isolated from the BWCA.	WET19, WR024, WR071, WR080, WR081, WR111
10648	In US Government maps, the One Hundred Mile Swamp is a 10.4 mile long depression straddling the Laurentian Divide that drains to both the Partridge River which is a tributary to the St. Louis River and Langley Creek which is a tributary to the Rainy Lake (BWCA) watershed. Groundwater contours for the swamp are easterly descending towards Langley Creek which promotes movement of mine waste to the BWCA watershed while the closer proximity of the mine to the Partridge River drainage site would minimize flow to the BWCA... Estimating the proportion of mine waste that flows to the two watersheds requires lateral hydraulic conductivity testing in the One Hundred Mile Swamp. Over the time scale that mine site drainage will leach pollutants and furthermore considering likely excursions in weather and water levels, flow to the BWCA is almost certainly not zero.	WET19, WR024, WR071, WR080, WR081, WR111, WR175
10671	Not only does the environmental impact study fail to properly consider hydrology around the mine site, it includes incorrect information. A misleading statement was inserted into the Wetlands Section (4.3.3) of the SDEIS late in the drafting process regarding the unavailability of geographical information for the One Hundred Mile Swamp. The statement “however, no delineated boundary exists for the One Hundred Mile Swamp” on page 4-429 is false. Delineated boundaries for the One Hundred Mile Swamp do exist and are available at <a href="http://www.nationalatlas.gov/streamer">http://www.nationalatlas.gov/streamer</a> " <a href="http://www.nationalatlas.gov/streamer">www.nationalatlas.gov/streamer</a> [2].	WET19
10689	[SDEIS] maps represent the One Hundred Mile Swamp in a way that is contradictory to the US National Atlas. The portion of the One Hundred Mile Swamp that drains to the BWCA watershed is missing in SDEIS maps. Contradictory maps in the SDEIS support the implication that seepage of mine waste water to the BWCA watershed will not occur. In SDEIS maps, the One Hundred Mile Swamp is depicted as a 5.5 mile long body of water that exists only on the St. Louis River watershed side of the Laurentian divide as compared to the 10.4 mile long wetland in the National Atlas that exists as a depression straddling the divide and drains to both the St. Louis River and Rainy Lake Watersheds. The first incorrect map of the SDEIS appears as Figure 4.2.3-1 and there are at least five others. The periphery of the One Hundred Mile Swamp in SDEIS maps was marked with a dashed aqua colored line on a green satellite image background making it difficult to see, and the fact that geographical coordinates were also not provided makes it challenging to compare SDEIS maps to existing maps. It is a concern that the authors of the SDEIS appear to have intentionally obscured map features in support of the misrepresentation that mine waste water will not flow to the BWCA.	WET19, WR080, WR081, WR175
10698	On the basis of the re-drawn maps, attention has been diverted from the Boundary Waters. No baseline water testing was done in Langley Creek, the Dunka River or anywhere else in the Rainy Lake watershed nor would any water testing be done if mining were allowed. Absence of water testing in the Rainy Lake watershed leaves the BWCA and Quetico completely unprotected. Before permitting can move forward, addenda to the SDEIS are required including correct watershed mapping, hydraulic conductivity testing in the One Hundred Mile Swamp, water quality testing for the BWCA watershed, and a correct and unambiguous statement about the impact of the proposed mine on BWCA water quality.	WR024, WR071, WR080, WR081, WR111, WR175

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Eric Morrison (18177)		
11804	it is a serious concern that PolyMet lacks the assets required to provide a level of financial assurance commensurate with the scope of the proposed project. The need to carefully manage financial assurance for mining is greatly exacerbated for the NorthMet project by PolyMet's finances, ownership, and the extreme risk to the environment from sulfide ore mining.	FIN01
13203	The proposed mine site is uphill from a body of water (One Hundred Mile Swamp) that straddles the Laurentian divide and feeds both the St. Louis River and Rainy Lake (via the Dunka River) watersheds. Mention of both the One Hundred Mile Swamp and the Dunka River as it relates to hydrology of the mine site is completely absent from the SDEIS and may be intended to obscure the impact of the proposed mining on the BWCAW wilderness area.	WR175
13205	The waste water treatment discussion is inadequate. Reverse osmosis its likely to be completely impractical because of short membrane lifetimes and other maintenance issues and the non mechanical treatment methods proposed for the 200 to 500 year treatment are not only unproven, they do not exist today.	PD03
15294	For the Minnesota Department of Natural Resources to negotiate financial assurance with PolyMet without public or legislative oversight is a severe violation of the public trust..	PER03
<b>Sender Name (Submission ID)</b> Eric Norberg (54778)		
19490	PolyMet is a tremendous opportunity for Minnesota to be a key supplier to the renewable field. My experience with Minnesota's mining industry throughout my career is that we have the science, technology, and the ethic to produce these metals safely and without harm to our natural environment.	SO10
19491	clearly we have stronger regulation and safeguards than any other mining district in the world .	PER34
19492	The Range needs good stable jobs which lead to good stable Minnesotans. PolyMet's economic impacts as described in the SDEIS are good for the Range and good for Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Eric R & Carlson Bong (11537)		
2573	•Polymet's environmental review admitted that clean-up would require 500+ years of H2O treatment. Will any mining company or its profits still be around to pay for this??	FIN01
2573	•Polymet's environmental review admitted that clean-up would require 500+ years of H2O treatment. Will any mining company or its profits still be around to pay for this??	FIN01
2574	•With clean water becoming a dwindling resource globally, I support the choice to protect our waters, especially from the threat of such detrimental and long-lasting consequences, and in exchange for such a short-term solution.	WR195
2574	•With clean water becoming a dwindling resource globally, I support the choice to protect our waters, especially from the threat of such detrimental and long-lasting consequences, and in exchange for such a short-term solution.	WR195
7426	•H2O is the MOST ESSENTIAL RESOURCE for life, and a 76% KILL rate is not remotely good odds. We all depend on the flora and fauna that will likely be indefinitely destroyed if sulfide mining is allowed in our globally historic and pristine waters.	VEG03, VEG06

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Eric R & Carlson Bong (11537)		
7426	•H2O is the MOST ESSENTIAL RESOURCE for life, and a 76% KILL rate is not remotely good odds. We all depend on the flora and fauna that will likely be indefinitely destroyed if sulfide mining is allowed in our globally historic and pristine waters.	HU01, WR195
13528	•The proposed mining operation MIGHT create jobs on the Iron Range for 20 years +/-	SO06
13528	•The proposed mining operation MIGHT create jobs on the Iron Range for 20 years +/-	SO06
17124	•76% of sulfide mines to date have dramatically damaged surrounding waters and ecosystems. •Of those offending mines, 90% filed for bankruptcy upon being mandated to pay for their clean-up costs. •The smallest figure from the above statement was \$40 million. Those cases not paid for by the offending mine landed on tax payers.	FIN01, WR023
17124	•76% of sulfide mines to date have dramatically damaged surrounding waters and ecosystems. •Of those offending mines, 90% filed for bankruptcy upon being mandated to pay for their clean-up costs. •The smallest figure from the above statement was \$40 million. Those cases not paid for by the offending mine landed on tax payers.	WR086, WR091
<b>Sender Name (Submission ID)</b> Eric Viken (44982)		
6963	The mining should only be allowed if it can be shown that the water and air quality off the land used to mine is not impacted long after the corporation that mined the land ceases to exist.	AIR11, WR037
6969	A method for mining must be first found to prevent the dangerous contaminants from leaking out and dispersing off of the mine site and not to rely on continuous filtering and maintenance of water flowing off site.	AIR11
6973	We are essentially taking a piece of land and converting it to a contaminated waste dump that won't be useable for other purposes for many generations....	LU01
6982	The mining should only be allowed if an endowment fund of enough funds is able to be setup before mining commences to ensure that the site cleaning and containment system can be maintained for perpetuity until the site is longer a source of pollution (i.e., 500+ years).	FIN01, FIN08
6984	The lost tax revenue and utility of the land after the mine ceases to operate needs to be considered because it will become a liability once the mine is used up and is no longer useable and long term will be a drag on the local economies.	SO02
<b>Sender Name (Submission ID)</b> Eric Willms (7061)		
463	In light of today's exposure of the DNR's ignorance of accurate water flow analysis, I have difficulty trusting the other data compiled in the SDEIS. The DNR should go back to the drawing board to analyze water flow in a model that includes predictions for climate change as well.	AIR01, WR003, WR077, WR086, WR180
464	Another major concern I have is the lack of consideration for the type of construction materials to be used for piping sulfate-containing water 7 miles between mine and plant. Nobody from the DNR at the recent Aurora public informational session could tell me anything about pipe construction. What happens when the temperature drops to -50 F?	PD36
465	Finally, how can anyone predict the financial responsibility required to continue monitoring and treating pollution for 200 and 500 years?	FIN01, FIN05, FIN11
466	It appears that you are more interested in corporate profit than environmental protection.	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Erica Ann Allen (57146)		
16841	The benefit to the Polymet Company does not outweigh the damage the company's practices cause to the public.	SO01
<b>Sender Name (Submission ID)</b> Erica Johnson (10136)		
344	Allowing them to mine puts the taxpayer a risk for millions, if not billions, of dollars in cleanup funds for decade after decade.	FIN10
1431	I am opposed to the PolyMet Mining, Inc. project and feel that it is a bad investment for Minnesota and urge the DNR to forgo the permitting process.	PER35
<b>Sender Name (Submission ID)</b> Erica TenBroek (12062)		
50	PolyMet would emit 707,342 metric tons of carbon dioxide into the atmosphere every year. This would contradict Minnesota's goal to reduce carbon emissions.	AIR01
55	This is an open pit mine. More people could be exposed than were ever exposed in history to such particulates [amphibole mineral fibers].	HU05
56	Those who have estimated losses have given a huge range in values for the area of wetlands to be affected. As with all estimates of costs, these losses have undoubtedly been underestimated.	WET24
57	If this proposal goes forward, which I would hope it won't, Plan B seems more acceptable, leaving some surrounding habitat.	ALT13
58	PolyMet should absolutely be required replace wetlands of the same caliber (of those lost).	WET05
59	IF the watershed is redirected, the company should be required to physically move sensitive species.	VEG01
62	Relocate waters and base sediments/peat from the wetlands to be excavated. These would contain numerous micro & macro invertebrates that would otherwise be destroyed and lost.	AQ20
63	Move/replant critical trees, forbs, grasses, mosses from this habitat to the redirected watershed.	VEG01
64	Use wildlife specialists to move/relocate as many fish, amphibians, reptiles and other vertebrate species that will otherwise be destroyed (those in and out of the water) as possible.	WI01
65	PolyMet should insure the new wetlands will support the same complexity of species.	WET05
66	If in the same watershed, relocation of wetlands should NOT be to an area where future mining is predicted or downstream of the polluted waters that will be produced by the mining operation.	WET03
67	The relocated wetland should NOT displace other sensitive habitat.	WET05
1520	Not only is 200-500 years of environmental distress enough to make a decision, but the fact that we will put increasing stress on an already shrinking area of natural habitat.	PD29

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Erica TenBroek (12062)	
1521	It is certainly true that we all use products that require minerals obtained from mining. Nevertheless, the location of this mine and the potentially large environmental impact should make this an obvious choice.	GEN01
9850	As the world continues to grow, and demand for materials grows, we will continue to push the natural world into smaller and smaller spaces. In the end this will undoubtedly harm our way of life.	HU03
18507	Poly Met will not only dig up nearly 1,000 acres of high (biological) value peat bogs, but it will seriously damage a large part of the 100 Mile Swamp, a critical habitat for many plants and animals. This wetland has been designated an Area of High Biodiversity Significance in the Minnesota Biological Survey. ... The damage is almost always more than we can predict, and the suffering to individual animals has been glossed over or completely ignored. So much is unseen and subtle that we cannot calculate the true cost until the damage is done. We can't get back the organisms from these key habitats once they become extinct, and it goes without saying that such areas of high biodiversity are the most critical to preserve.	WET19
18509	I don't think copper and/or nickel are the limiting materials in cell phones and many green technologies. The same "green" products are dependent upon more limited supplies of scarce rare earth metals. These markets are typically private and so amounts available are not widely known. These rare earth (different from precious) metals are primarily mined in other parts of the world (e.g. China) and it's my understanding that we will run out of these long before copper and nickel supplies are gone.	NEPA03
18510	Although green energy and other forms of energy rely on mined minerals, it is oxymoronic if a "green" technology ultimately creates more ecological damage and/or pollution than it prevents. Do we take into account the true costs mining when considering what is "green?" Something seems wrong ourcost/benefit analysis.	SO01
18511	There is no debate that copper is currently used in many products, but does it need to be?	NEPA15
18517	This is an open pit mine. More people could be exposed than were ever exposed in history to such particulates. Any serious health effects on humans will take years to manifest, and the mining company will be difficult to hold accountable.	HU03
18520	The public is assuming MN regulates so well it will prevent long term damage to the environment. This is extremely short sighted and part of the reason there are so few speaking in opposition.	PER06
18522	Reverse osmosis is misleadingly presented by PolyMet to be our answer to preventing perpetual pollution. Reverse osmosis on a large scale is incredibly expensive and requires four or more (sometimes many more) gallons of water for every clean gallon produced. Even if Poly Met is able to pay, will this water be available as climate change progresses? The filters alone will require continual maintenance and the waste produced requires removal, treatment, and/or storage, or, as has been done by other mining companies, will the watershed end up being the dumping ground? Is this a cost effective, economically viable and truly non-polluting solution over the long haul?	PD03
18524	Require Poly Met to pay more for the biological loss. Know that the new wetlands will not reduplicate the biodiversity of those to be destroyed or contaminated unless the wetlands are completely transplanted to the new areas. There is very high value in biodiversity and the current plan does not require enough of PolyMet.	FIN11, WET05
18527	Require Poly Met to insure the replacements won't require 100 years to become true wetlands. Significant supplemental help will be required to achieve even close to the biological service the current wetlands are providing for Minnesota. PolyMet should not only restore but should support unbiased research to measure biological status of the surrounding areas during and following mining.	COE01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Erica TenBroek (12062)		
18529	Wildlife specialists could be asked to move/relocate fish, amphibians, reptiles and other vertebrate species that will otherwise be destroyed. Especially the threatened, endangered or species of special concern that are not mobile (enough) to leave the area.	WI01
18534	Does MN want a start-up company, however wonderful the financial backing, to use this mine as a learning experience?	PD23
18536	this project does not have Minnesota's best interests in mind but instead the interests of parent investors outside of the U.S. The project will leave Minnesotans less of what it once was and saddled with long term clean-up debts.	SO02
18538	There is absolutely no guarantee that PolyMet will put their profits back into Minnesota beyond some local jobs and whatever else is required of them.	FIN01
<b>Sender Name (Submission ID)</b> Erich Wunderlich (16150)		
9694	No amount of up front, accrual or set aside can restore a destroyed watershed. There is no such thing as a fail-safe 500 year plan.	WR037, WR129
<b>Sender Name (Submission ID)</b> ericksongary (44906)		
8174	The risk of permanent damage to the environment is not worth the price of shipping Minnesota copper to China. The resulting jobs are a blink of an eye compared to centuries of poisoned waters.	SO01
17108	How many businesses last 500 years? When Hennepin Paper went broke the taxpayers paid for the cleanup in Little Falls and the odds on 500 years of follow up is unrealistic.	FIN01
<b>Sender Name (Submission ID)</b> Erik (40074)		
6922	I am unwilling to risk the health of those [lakes, waterways, and aquatic life in pristine wilderness] areas on the basis of reports that assume flawless operation of an industry that cannot demonstrate such perfection at any other location and where the only stated benefit is 350 jobs.	WILD02
6931	What recourse do we have if it becomes evident that the operation of the mine is not in accordance with predictions associated with minimal environmental impact?	PER06
6935	What guarantee do we have that this company or its investors will honor any promise to pay for future cleanup? If the assumption is that little cleanup will be needed, how is the amount of money set aside by the company determined?	FIN01
6938	Will it be written into the permit that projected levels of pollution must be realized or the permit will be revoked?	PER06
6941	How will the levels of pollution be monitored, both on site to assure that contaminants are not escaping and elsewhere to be ensure that nearby water and aquatic life is not affected?	AQ30, WR141
6947	Why isn't underground mining part of the proposal? Isn't open pit mining inherently more risky to the environment?	ALT01
6950	Will the company pay for all monitoring and testing performed by state and national environmental agencies?	FIN01, FIN11
6956	If it is admitted that the process creates water that should not be reintroduced into the environment "as-is", how will the DNR monitor and assure state residents that absolutely no untreated water is escaping into the environment without treatment?	WR070, WR139

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Erik (40074)		
6967	If untreated water is found to be entering the environment, will the permit be revoked and mining operations ceased?	PER06
16363	What happens if the amount of pollution is demonstrated to be greater than predicted - will additional money be required from the company in the present to pay for the greater than predicted cleanup?	FIN01
16365	PolyMet owns the mineral rights, but I have read that the US Forest service considers surface mining to be illegal in this area. I do not agree that swapping land is a reasonable solution to this issue.	LAN02
<b>Sender Name (Submission ID)</b> Erik and Larissa Mottl (44189)		
11886	If there are no plans for Polymet to treat the contaminated water there should be NO mine at this time.	PD05, WR070, WR143, WR195
11888	This mine would provide short term employment opportunities for a few residents. It is simply not worth the risk to ruin another park of Minnesota's natural heritage for short term extraction and financial gains to an industrial interest.	SO01
<b>Sender Name (Submission ID)</b> Erik Erie (42525)		
15533	I trust the process with the EIS in determining how the Polymet project can go forward in a responsible manner. The process however has been frustrating to watch as the time and money involved to get to this point has been excessive.	PER20
<b>Sender Name (Submission ID)</b> Erik Hinderlie (28150)		
16704	[I] am terrified at the havoc it would do to the marvelous jewel that is the Boundary Waters Canoe Area Wilderness, and what it could do to Lake Superior if leaks and drainage got out of control.	WR111
16707	I am sure as decision makers you have seen Glencore's terrible history, though handsome profits because environmental destruction, topsoil depletion and freshwater contamination is never calculated in GDP or economic indexes. But you will feel its terrible power if sulfide mining contaminates the North Woods, in polluted lakes, rivers and streams, massive deforestation and habitat fragmenting, reduced employment in tourism, outfitting, recreational hunting and angling and second home properties--it will be chaos for short-term economic goodness for one company, not the area.	SO01
16709	Let us not give away one of Minnesota's most critical assets---a billion dollar tourism, recreational and private property industry to one quick burst of mining metals.	SO02
<b>Sender Name (Submission ID)</b> Erik R. (58139)		
19937	In the end it comes down to this, the project as laid out in the SDEIS poses far too many risks and brings little in the way of benefits to the state and to the regions.	SO01
19939	It is clear from the report that [the West Equalization] basin will receive the "reject concentrate" from the plant that takes pollution from the tailings. What isn't clear in the SDEIS is exactly how polluted this basin will be.	WR175

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Erik R. (58139)		
19954	Not only does the SDEIS fail to describe the predicted levels of pollution in this basin, it offers little in the way of contingency plans for what would happen in the results of a catastrophic weather event. The extent of their existing contingency plan is that any overflow from this basin would simply flow into the mine pits, which are in no way designed to deal with the high levels of concentrated pollution present in the basin.	PD22
<b>Sender Name (Submission ID)</b> Erik Riesenber (18229)		
13567	What isn't clear in the SDEIS is exactly how polluted this basin [West Equalization Basin] will be. The only document that offers any indication as to these figures is the 2012 Mine Site Wastewater Treatment Design Plan, and this plan is neither listed nor referenced in the SDEIS...it [the plan] offers little in the way of contingency plans for what would happen in the results of a catastrophic weather event.	WR173, WR176
13568	We have seen over and over how these projects can go bad and then we the taxpayers are left to clean up the mess...it is that these corporations are corrupt and not bound by the legal framework that individuals are bound by. They purposefully structure themselves legally so as to minimize or outright avoid any liability in the event that anything goes wrong. There is no reason to believe that PolyMet or its investors would be any different. Therefore, there are no conditions or restrictions you could place on this project that these companies couldn't find a way out of, and that is why I ask you to reject the SDEIS.	FIN01, FIN03, FIN10
<b>Sender Name (Submission ID)</b> Erik Simonson (43130)		
15860	My particular concern is with the future quality of the river and the estuary with respect to excessive mercury content. Currently, there remains a fish consumption advisory in effect for game fish taken from the river and estuary.	MERC02
15861	MPCA is in the midst of a multi-year effort to determine, through science, why these mercury levels remain unusually high, especially given the reduction in airborne emissions over the past years. While it is unknown what the end result of this study will reveal, it should at the very least be considered as you review this proposal for compliance.	MERC01
15862	I understand you must consider current law, but it is entirely possible that the mercury standard may change in the near future. I ask you to consider the possibility that the proposal may have to be adjusted to a lesser discharge of mercury, and can the proposal be adjusted to meet that in the future?	PER06
<b>Sender Name (Submission ID)</b> Erika Carls (45153)		
8417	I would like to know what amount of water pollution from the PolyMet mine would cause our already poor quality water to change to unhealthy and to unpotable water.	PD03
8419	Is the current water quality in the area linked to problems such as cancer or other health issues?	HU05
8424	What health problems could be caused by the chemicals used in the mining process?	HU01
8426	Would pregnant mothers be more strongly impacted by water quality problems?	HU03
8429	Would the increased rate of mercury pollution in the Embarrass river effect any people or other organisms? How would the levels change in the case of a small leak, or in the case of a large leak?	MERC02
8433	How much leaching is predicted from this mine?	PD03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Erika Carls (45153)	
8439	What is the probability of having a mining accident like the one in Virginia which cause the water to be completely undrinkable?	HU03
8442	How would the health of the workers in the mine be impacted by the air pollutants they will be exposed to while they are working, including mercury pollution?	HU03
8444	How would such air pollution effect the people in the towns near the mining operation?	HU03
8447	If the speed with which copper is extracted is slowed down, could workers keep their jobs for a longer period of time, and could this reduce the pollution rates and possibly the impact of pollution?	ALT13
8449	How many jobs will be provided as a result of the need to monitor the environmental impacts on the project area?	SO10
8452	What emergency equipment is needed for clean up in the case of an accidental large scale leaking or other pollution event? Will this equipment be stored in an area that is easy to access in an emergency? Will personnel be trained on how to operate such equipment?	HAZ06
8453	Is there a guarantee that the quality of water will be monitored on an hourly basis? If not, how frequently will the water quality be monitored?	PD05
8456	How much will water treatment cost in the worst case scenario?	ALT01
8459	Since the treatment of the water will need to continue for up to 500 years, how will we guarantee that there is enough money to keep treating the water?	FIN01
8461	Will a substantial enough portion of the profits be set aside for clean up efforts, especially in the case of a major mining pollution accident? Will this money be kept in a place where it can not be removed for other purposes in the case that the company goes bankrupt?	FIN01, FIN08
8466	How is climate change likely to impact the PolyMet mine? Will the predicted increased intensity of storms cause any difficulties in keeping the mining area safe? I am especially concerned about increased flooding events	WR077
8467	Are there plans in place for natural disasters such as earthquakes, or for the possibility of tornadoes up here?	GT12
8474	I have questions about the impact of the PolyMet mine on the ecosystems in the area as well.[Such as] How will the leaching from mine tailings impact the photoplankton, zooplankton and larger aquatic organisms in the area?	AQ06
8492	Does the land exchange mean the USFS will acquire additional lands in another location? Will the quality of the ecosystem on these lands be comparable to the quality on the land being lost?	LAN03, LAN06
8493	Would the proposed railroad increase the number of animal deaths in the area? Could a large animal, such as a deer, derail a train? What would the impact of a train crash on the area be?	WI03
8495	These are my thoughts about air pollution. [Such as] I support the anti-idle program that is being considered. I believe this would not only reduce the air pollution caused by the project, but could also save the company money. Is it possible for the company to invest in wind energy and/or solar energy?	AIR14
8498	Water quantity and quality concerns. [Such as]Water is being dumped into two different rivers. Does this increase the environmental impact because the water is in two rivers, or is the solution to pollution dilution?	WR197

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Erika Carls (45153)		
8503	Land Restoration. [Such as]When the land used by PolyMet is reseeded at the end of the project, would there be a less severe impact on the environment if only native plants were reseeded in the area?	WET06
8507	What measures can be taken during the project to make the PolyMet company more environmentally friendly and cost effective, such as the use of green roofs on buildings, strongly insulated windows and programmable thermostats?	NEPA08
8509	Culture. Will the native people who have the right to hunt, fish and gather on certain parts of the proposed PolyMet project area be able to have these rights on the lands which are being involved in the land exchange, and would such lands provide these people with access to comparable quantities of resources?	CR01
8514	Land Exchange. I don't understand how federal land can be exchanged for the land that will be mined. Isn't federal land already publically owned?	LAN02
15428	Can large mammals, such as lynx, be trapped and re-located to decrease possible population drops? Can other animals be relocated, especially the 7 state listed species?	WI01
15429	Can plants be re-located? How can we make sure that the number of ETSC plant species does not decrease?	VEG01
15431	Will any chemicals be used to control the presence of invasive species that may appear in the land that is being restored, and how would these damage the environment?	VEG05
15432	If there is an environmental disaster caused by the mine, will an additional land exchange take place to help compensate for the damaged land?	LAN02
15434	Could any type of natural disaster cause the watershed area around the proposed PolyMet mine to shift such that the water impacted by the mine would enter the boundry waters canoe area?	WR035, WR081, WR090
15435	How will this project impact the monarch butterfly population in the area? Monarch butterflies are rapidly declining and every disruption in the population of this migratory species can spell disaster.	WI01
15436	Many species depend on wetlands for survival. Since acres of wetlands are being destroyed or impacted by this project, will new protected wetlands be provided in the land exchange and/or will new wetlands be created on the exchanged land? Also, for the wetlands created near the project area, will these be of compromised quality due to the leaching from mine tailings?	WET14, WET15
<b>Sender Name (Submission ID)</b> Erika Sitz (43330)		
11844	Does process plan capture all polluted water? What about accidents, extreme weather events, or if things just don't go as planned? Treatment plan length needs more documentation.	WR035, WR130, WR180
15745	There are innaccurate and incomplete data in water modeling, e.g. Partridge River.	WR003, WR052, WR071, WR086, WR091
15746	Destroys 1000 acres of prime peat lands, including 100 Mile Swamp.Destroys another 6000 acres of wetlands by changing water flow.Replacement elsewhere is not adequate!	WET24
15747	Minnesota Power's dirtiest coal plants [will power the mining operations], carbon dioxide and mercury.The boreal forest is extremely vulnerable to climate change.	AIR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Erika Sitz (43330)		
15748	Glencore's long history of environmental pollution, NOT TRUSTWORTHY. More detailed discussion of financial assurance needed to protect taxpayers.	FIN01
<b>Sender Name (Submission ID)</b> Erin DeWitt (57142)		
16839	Mining – the PolyMet project would be environmentally irresponsible – jeopardizing the quality of water not only for our region, but the whole state as this region is a major watershed!	WR111
<b>Sender Name (Submission ID)</b> Erin Goetz (17165)		
1752	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR060, WR181, WR182, WR195
16978	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	WR012
<b>Sender Name (Submission ID)</b> Erin Jordahl Redlin (47449)		
17595	you aren't dealing with financial assurance in the SDEIS, but I think we need answers now about who will pay for the inevitable pollution that occurs, when the companies behind this project no longer exist. Future generations of Minnesotans will be on the hook for those costs - generations that didn't have any input into this decision.	FIN01
17596	With such a poor record of operation in every other place it has been done, why do we think the pollution won't happen here? And why do we believe that the PolyMet corporation and its investors will be around to clean up the pollution?	PD26
17597	the SDEIS is inadequate and the proposed mine plan, as well as the proposed exchange of 6,650 acres of Superior National Forest lands, would have unacceptable environmental impacts.	NEPA09
<b>Sender Name (Submission ID)</b> Erin Manning (47894)		
11309	The PolyMet project would harm moose further due to loss of habitat and habitat fragmentation. It will be in a key area of moose habitat types.	WI02
11312	Moose are also a large draw for tourists to the northern Minnesota woods. Lack of tourists, which this mine would have a huge impact on in many ways, will harm our economy greatly.	SO02
11315	The SDEIS should analyze alternatives to reduce loss of lynx habitat.	WI10
13530	The PolyMet project would harm moose further due to loss of habitat and habitat fragmentation.	WI02
13553	Another animal that will be greatly affected is the Canada lynx. ... Having 200 or fewer lynx in Minnesota currently, we should be doing everything we can to protect these amazing northern Minnesota animals. The SDEIS should analyze alternatives to reduce loss of lynx habitat.	WI01, WI10
13554	It is our job to protect irreplaceable wetlands, fresh water and wild life habitat resources in the Lake Superior Basin for generations to come.	PER35

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Erin Manning (47894)

16202 Lack of tourists, which this mine would have a huge impact on in many ways, will harm our economy greatly. Many of our local businesses rely on the tourist economy. SO02

**Sender Name (Submission ID)**    Erin Ramberg (45597)

12809 Adding a hazardous practice mine to strip a few mineral for a 20 year duration seem senseless when considering the potential to damage the quickly diminishing clean fresh water we prize and the outdoors I've personally used and loved for 40 years of my 46 years of life. SO01

**Sender Name (Submission ID)**    Ernest and Beth Cutting (54476)

17560 The SEIS already makes it clear that wetland "restorations" will not take place in the Lake Superior watershed and are highly unlikely to replace bogs. The wetlands at the site have been rated as "having high wetland quality." How can they possibly be "replaced"? WET03, WET05

17562 chemical pollution, not just from sulfate and its acceleration of toxic mercury conversions, but also heavy metals like nickel and aluminum...kills fish. AQ05

17563 The long term need to clean up after from pollutants, possibly for 200years. How can that be assured, especially with more mines ready to ask for permits in that area? FIN01

17567 can such [post-closure water] treatment truly control all the sorts of pollutants that will come from the mine site? The SEIS predicts the company will excavate 307 million tons of bedrock in 20 years, at 70,000 tons per day. PD04

17570 We are concerned that a lot of the proposed PolyMet site area has been designated by MN DNR as "Sites of High Biodiversity Significance" and support eleven state-listed species of plants. Destruction of such an area cannot be rectified, nor justified. VEG01, VEG02

17571 There are other ways [besides mining] to create jobs in this fragile and unique area of Minnesota than this. One suggestion is to create metal recycling facilities and hire people to work on recovering the metals we need. NEPA06

**Sender Name (Submission ID)**    Ernesto Luna (58015)

19851 Our natural resources are too beautiful to risk. LU04

**Sender Name (Submission ID)**    erossow@gustavus.edu (41685)

2161 This project may create jobs and provide resources that are valuable to other industries. Although once the job is completed the only people that will be gaining income will be the companies that continue to get money off the land. The jobs will only last 20 about years then after that people will be back to where they were. SO02

2162 Also, from the negative impacts there will be health problems HU03

15224 Please do not allow the PolyMet mining to happen. I do not believe that this project will benefit the community or the environment in a positive way that would continue over time. Yes, there are pros and cons to this however, in the end the negative effects are much more prominent than the positive ones. CU11

**Sender Name (Submission ID)**    Espoir DelMain (16488)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Esplor DelMain (16488)		
1536	sulfide mining in Minnesota ... will destroy the many watersheds that encompass our state	WR111
<b>Sender Name (Submission ID)</b> Esther Hope (47977)		
14192	The SDEIS does not give any reasonable assurance that...environmental damage [from tailings leakage] can be addressed.	WR132
<b>Sender Name (Submission ID)</b> Esther Ouray (20070)		
14463	The modeling results provided in the SDEIS show that PolyMet and the DNR simply did not look beyond 500 years. The fact that the SDEIS does not say when the mine pit and tailings basin will stop polluting our water is a major and apparently intentional failure that needs to be corrected by the DNR. Please run the models - or require PolyMet to run the models - long enough to show when pollution of our water by PolyMet's mine would cease.	WR038
14527	PolyMet assumes the proposed expensive and complicated water treatment system will continue to operate effectively for long, long after the mining has stopped. It should be expected that mechanical systems like pumps, filters and pipes will eventually fail. In a 2007 report, an organization called Earthworks analyzed the records of 14 modern copper mines in five states found that 100% of these mines experienced pipeline spills or other accidental releases. 92% had failures of water collection and treatment systems that resulted in releases of contaminated mine seepage that significantly impacted water quality.	WR021, WR023, WR131
14528	Polymet's SDEIS lacks contingency plans for predictable failures in the proposed piping, pumping, and filtration equipment.	PD22
14529	By assuming that a complicated water treatment system will function indefinitely without fail, the SDEIS has failed to take the hard look required at the proposed PolyMet sulfide mine.	NEPA14
14530	the existing tailings basin is already leaking millions of gallons of untreated water, yet the chemical composition of that large volume of leaking water has not been tested and characterized. The failure to test and account for known leaks of untreated tailings basin water from the existing LTV Steel tailings basin is another major problem with the SDEIS.	WR023, WR070, WR071
14531	the tailings basin and the dam holding it back from flowing downstream are recognized to be unstable. If the tailings basin dam were to fail, vast quantities of contaminated tailings, sulfates, and heavy metals would be released into the headwaters of the St. Louis River... The failure of the SDEIS to fully consider the potential for - and the consequences of - a tailings dam failure is a deadly flaw in the SDEIS.	PD22
14532	The SDEIS states that building an underground mine would have "significant environmental benefits" compared to an open-pit mine. However, the PolyMet SDEIS rejects underground mining, stating that in today's market conditions, underground mining is not considered economically feasible. The minerals will be there if and when the market prices are high enough to mine them right. Not fully considering the underground alternative is a major flaw in the SDEIS.	ALT01
14533	Long after the mining has stopped, PolyMet would pose an ongoing risk to fresh water... PolyMet should not be permitted unless, when the proposed mining stops, the groundwater and surface water is left in a clean condition, and surrounding streams, rivers, and Lake Superior are safe from risk of sulfide mine pollution.	WR037
<b>Sender Name (Submission ID)</b> Ethelyn Kaim (11575)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ethelyn Kaim (11575)		
2227	I don't believe this mining company will "clean up it's mess". I don't believe in the taxpayer "footing the bill There needs to be a lot of money 'up front' to pay for clean up.	PER10, WR160
2227	I don't believe this mining company will "clean up it's mess". I don't believe in the taxpayer "footing the bill There needs to be a lot of money 'up front' to pay for clean up.	FIN01, FIN05, FIN10
3245	The comment period is too short – it's in the middle of winter. The comment period needs to be extended.	NEPA07
3245	The comment period is too short – it's in the middle of winter. The comment period needs to be extended.	NEPA07
10653	I know many miners in this area are pro-union workers, I hope this project will respect the worker's right to organize and be part of a union.	SO06
10695	The profits from the industry must be kept in banks in the U.S... This corporation must not be allowed to bank their profits overseas.	PER02
10696	They must have a 'super fund' of their own to clean up the pollution that will be present...the fund must be in place before they are allowed to begin.	FIN01
<b>Sender Name (Submission ID)</b> Etta Bartholdi (57183)		
18658	Please don't destroy the boundary waters. I love them very much and I feel mining for coal will [ILLEGIBLE] destroy the natural beauty and eco health of the BWCA.	WILD02
<b>Sender Name (Submission ID)</b> Eunice Lindberg Milbrath (54505)		
18779	Please, please don't let us destroy this sacred space which will certainly happen if the Mining Interests who you know care for ONE thing. I am sure you have viewed the tailings and depleted land from used mines. That will happen here !	SO01
<b>Sender Name (Submission ID)</b> Evan Faltese (54477)		
17473	I have reviewed a few sections of the SDEIS and found that there is no provision to monitor mercury pollutants that could be present in the water that is returned to the environment.	MERC01
<b>Sender Name (Submission ID)</b> Evans Connelly, Jr. (4708)		
1872	[The NorthMet Project would]... produce products to help build this country.	SO10
<b>Sender Name (Submission ID)</b> Eve Glidden (43216)		
15828	the information regarding the potential impacts on wild life including fauna and flora is lacking more observent details including the pathways for moose, the breeding grounds for links, the extince of sun-dews (A rare medicine plant) in the proposed mine location.	VEG01, WI01, WI03
15829	I believe that saying clean up needs to happen for more than the amount of time the mine will be run is dangrous grounds and there is no proof that poly met, glencore or any other investors would stick around for long enough to clean up any thing.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Eve Glidden (43216)		
15830	There is also the issue of the tribal rights to the land.	CR01
15831	the fact that it is in the national forest should be enough to stop this plan before it starts.	WILD02
15832	another thing lacking in the seis it the real details about what would happen if we took out that much of our current carbon sink.	WET13
<b>Sender Name (Submission ID)</b> Evelyn Stillwell (39814)		
7344	Sulfide mining may have a short-term economic benefit for Minnesota but at what cost? There is clearly an environmental price to pay in the short-term but there is also there very real potential that this could turn into a massive environmental problem in the long term as a consequent of toxic metal release and Acid Mine Drainage. This possibility should not be understated - it would negate any initial financial benefit that Minnesota would experience and could leave the environment damaged for hundreds of years.	SO01
<b>Sender Name (Submission ID)</b> Eville Gorham (42824)		
7301	It seems to me extremely likely that given the present state of knowledge, and more especially our lack of knowledge as to how the hydrology of northern Minnesota is bound to change in the future as the climate changes, the effects of such mining upon aquatic and wetland ecosystems cannot be modeled satisfactorily a century and more from now.	WET24, WR196
7301	It seems to me extremely likely that given the present state of knowledge, and more especially our lack of knowledge as to how the hydrology of northern Minnesota is bound to change in the future as the climate changes, the effects of such mining upon aquatic and wetland ecosystems cannot be modeled satisfactorily a century and more from now.	PD22, WET24, WR196
7302	Adequate financial and other plans to take care of possible effects cannot be guaranteed with real confidence for a similar length of time, during which the security of the mine site, waste rock pile, tailings basin and wastewater treatment plants would have to be assured. This is so especially if-- as I am given to understand-- contingency plans are not already in place for accidents...	FIN01
7302	Adequate financial and other plans to take care of possible effects cannot be guaranteed with real confidence for a similar length of time, during which the security of the mine site, waste rock pile, tailings basin and wastewater treatment plants would have to be assured. This is so especially if-- as I am given to understand-- contingency plans are not already in place for accidents, of the kind to be expected with such a large, complexoperation because they have occurred elsewhere in similar situations.	FIN01, FIN08, PD22
18240	If accepted, [this project] would open the way for such mining even closer to our treasured BWCA.	CU04
18240	If accepted, [this project] would open the way for such mining even closer to our treasured BWCA.	CU04
<b>Sender Name (Submission ID)</b> eyesoftheworld . (44175)		
9421	I believe with copper sulfide mining in the BWCA watershed, there will be grave environmental impacts to the fragile ecosystem, flora and fauna.	VEG06
14896	The jobs are in no way worth destroying this treasure of nature. Mining is boom and bust and once they extract the resources of the area and possibly destroy the local environment, our children, grandchildren and beyond will inherit the legacy.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> eyesoftheworld . (44175)		
14897	I think it's a terrible idea to allow this. I really hope future generations can enjoy and benefit from this vital, unique and beautiful wilderness.	WILD02
<b>Sender Name (Submission ID)</b> F Jeff Verito (3564)		
248	PLEASE SEND THE REQUESTED INFORMATION. THIRD REQUEST	RFI01
550	What I require are large scale maps of the land exchange parcels, with contours, contour interval, and water features. I'd also like to know the vegetation composition and age of the trees on each parcel. Please make clear which are currently Federal versus private.	LAN06
775	I need to quickly be able to reference maps of what's to be exchanged and what's to be obtained with contours, water features, composition of the parcels (type and age of vegetation) and contour intervals. I've dealt with Ottawa and Hiawatha NFs for twenty years, and have camped Superior NF, and all the above has made me extremely distrustful. Your failure to provide obviously-needed maps only heightens this distrust. I cannot imagine why you'd refuse to provide this information unless you're trying to hide something. For the third time--PLEASE PROVIDE THE REQUESTED INFORMATION AND ONLY THE REQUESTED INFORMATION.	LAN06
2007	I can only assume that the land to be sacrificed is worth more than the land that will be exchanged for public use.	LAN03
7227	What I require are large scale maps of the land exchange parcels, with contours, contour interval, and water features. I'd also like to know the vegetation composition and age of the trees on each parcel. Please make clear which are currently Federal versus private.	VEG09
<b>Sender Name (Submission ID)</b> Fay Simer (58150)		
19914	How will mine clean-up be guaranteed and paid for after the mine closes? I am concerned this is not adequately addressed by the SDEIS process.	FIN01
<b>Sender Name (Submission ID)</b> Fern Peterson (3669)		
650	The proposed PolyMet project in the watershed of Lake Superior will destroy or permanently degrade thousands of acres of high-quality wetlands and cause permanent water pollution with sulfuric acid and toxic metals.	WET24, WR115
651	Treatment would be required for at least 500 years, but more likely thousands of years.	PD01
655	PolyMet's Supplemental Draft Environmental Impact Statement is inadequate in its response to these concerns. In February 2010, the EPA gave PolyMet's Draft Environmental Impact Statement (DEIS) the lowest possible score. After almost four years, PolyMet is back with a Supplemental Draft Environmental Impact Statement (SDEIS). Despite the length of time taken to prepare the SDEIS, it fails to describe the staggering environmental, economic, and social costs of the project.	NEPA09
694	We are strongly opposed to the State of Minnesota allowing PolyMet to begin production of any sort of mining near our pristine BWCA and feel it would be short-sighted and immoral to trade a few hundred relatively short term mining jobs for the future of our health and the health of our planet.	SO01
695	New technologies should be supported/discovered to reduce the need for copper and other minerals for our cell phones, computers, ipads, cars and other devices which are driving this "need" for sulfide mining.	NEPA06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Fione (54180)		
16423	I have never been to the boundary waters but I have only ever heard wonderful things about the experiences people have while they are there. During the speech some very valid points were brought up about how mining should not be allowed in the boundary waters area such as how it will pollute the area which is known well for camping and lots of wild life.	LU06
16424	Also it is a pure watershed which is a great resource to have, especially so close to home. I do believe mining should not be allowed in this nature sanctuary.	WR195
<b>Sender Name (Submission ID)</b> Flannery Delaney (15756)		
12066	...the economic gain is not worth the incredible risk to fresh water resources and land in northeastern Minnesota. ... A copper mine will bring a limited number of jobs for a limited number of years risking the natural resources the people of this state have depended on for their livelihoods and enjoyment.	SO01
<b>Sender Name (Submission ID)</b> Florence Marks (46077)		
10710	The project will provide some employment but the land will be raped in the process. The long term effects of the mining appear to be devastating. Until some satisfactory method of preventing contaminants from entering the water system, this is a no go from my perspective.	WR115, WR195
<b>Sender Name (Submission ID)</b> flynn karen (39536)		
6297	If the company declares bankruptcy at some point, there will be insufficient funds to clean up any mess.	FIN01
13541	I don't think we can count on a business to have environmental safety as its primary concern.	SO01
<b>Sender Name (Submission ID)</b> Fond du Lac Band (42920)		
2768	The Land Exchange Proposed Action, as described in the SDEIS, serves to confirm our concerns for permanent, unmitigated impacts to treaty resources in the 1854 Ceded Territory. The Band submitted comments on the Feasibility Analysis... including: A full consideration of the fair market value and future use of the federal land in the proposed PolyMet Land Exchange would recognize a private windfall instead of an equal exchange, in violation of federal statutes, rules and policies. ...The Band is also concerned that most of the non-federal land proposed in the PolyMet Land Exchange has a divided mineral estate. Divided ownership raises uncertainties about future benefits that that the non-federal surface could afford to the public, further diminishing the value of the non-federal lands, and is not consistent with Forest Service Conveyance policy (36 CFR 254.15)....Further, any proposed federal land exchange that is not consistent with forest resource management plans must be rejected under 36 C.F.R. 254.3....The Band expects that the U.S. Forest Service, in facilitating the PolyMet Land Exchange, would coordinate with the policies expressed in our plans to protect natural resources on the Reservation and in the Ceded Territories. ... The Band is extremely concerned about the loss of high quality, even exceptional, wetlands within the federal estate, without sufficient information to understand whether the proposed non-federal parcels provide equivalent functions and values. Access to treaty-protected resources is of prime importance to Band members. Loss of access to or use of public lands within the Ceded Territory can significantly impact exercise of treaty rights, and this issue should be thoroughly evaluated in the SDEIS process.	COOP01, LAN03, LAN04, LAN05, WET14
2782	Wetlands also function as thermal refuge for moose when summertime temperatures exceed 14oC, the point at which moose become thermally stressed, and wetlands provide an important forage resource for moose during the open water season.	COOP01, WI01, WI02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
2788	In the co-lead agency evaluation of the underground mining alternative, the North Met Deposit is described as a “low- to medium-grade mineral resource” which is somewhat at odds with its description as “one of the largest untapped deposits of copper and nickel, and other precious metals” or “world class resource” as it is represented throughout the SDEIS and in continual media coverage. From the SDEIS, we are not able to determine whether mining this mineral deposit in accordance with environmental standards will be profitable enough to provide adequate environmental protections and financial assurance.	COOP01, PD25
2799	while the co-lead agencies stipulate in the SDEIS that PolyMet will bear liability through financial assurance[legacy contamination at LTV], it is troubling to see that apparently, they will not be required to complete remedial activities until closure, many decades from now	COOP01, LU02
2845	The mass balance does not take into account seepage from the saturated overburden at the OSLA, or the load of mercury from Colby Lake stream augmentation. Given the known concentrations of mercury in Colby Lake, which consistently exceed the GLI standard, this mitigation measure is clearly not permissible as a discharge that would contribute to an existing water quality exceedance.	COOP01, MERC20
2856	Hunting pressure has been ruled out as a major contributing factor to population-level declines, but the appearance of holding a hunt does not sit well with the public, so the DNR, 1854 Treaty Authority and Fond du Lac all closed the 2013 moose season.	COOP01, WI01
2860	The Band’s consistently expressed concerns for potential air quality impacts from the Proposed Project (a new source of mercury, visibility in a Class 1 airshed, fugitive dust impacts to terrestrial and aquatic resources, asbestos-like mineral fibers) from the Proposed Project remain largely unaddressed in the SDEIS.	AIR08, COOP01
2878	the Plant Site multi-pathway cancer risk for a farmer was found to be equal to the MDH additional lifetime cancer risk guidance level of 1E-05. Although this level is considered “guidance” and not a regulatory action level, the Band believes this value clearly indicates the potential for adverse health effects. The same result was found for the off-site worker inhalation additional lifetime cancer risk. The major drivers for these endpoints were cobalt, nickel, and dioxins (farmers only). Exposure to nickel has been linked with increased risk of lung cancer, cardiovascular disease, neurological and developmental deficits, and high blood pressure.	COOP01, HU05
2879	As shown in SDEIS Table 6.2-22, cumulative inhalation risks for non-cancer chronic and non-cancer acute effects from both the facility and existing sources are equal to the incremental acute risk guideline value of 1. This shows that the predicted impacts of NorthMet, when added to the toxic releases already prevalent in the area, have reached the level where health authorities begin to be concerned about cancer risks.	COOP01, HU05
2897	Cumulative effects result in a relentless, unmitigated diminishment of treaty resources and access to those resources. Yet across virtually all resource categories, the SDEIS predicts that there will be no adverse impacts...; this conclusion then enables the co-leads to determine ‘no cumulative effects’ from the project and the land exchange. ...over the course of the DEIS and SDEIS processes that support our misgivings for this circular logic. We presented a substantial alternative analysis of cumulative effects from the NorthMet Project Proposed Action as part of our commenting during the preliminary SDEIS review.	COOP01, CU11, CU12
2905	The Band’s comments on the 2009 DEIS related to impacts to the 1854 Ceded Territory stand.	COOP01, NEPA12
2906	The Band’s comments on the 2009 DEIS related to environmental justice impacts still stand.	COOP01, SO09
2907	The Band’s comments on the 2009 DEIS related to climate change impacts still stand.	COOP01, NEPA12

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
12909	The Band also shares concerns communicated by the Bois Forte Tribal Historic Preservation Officer: Mesabe Widjiu is correctly identified as a sacred landform, but needs to be considered in its entirety (see attached map as an example). The segment encountered within the project area is small, but integral to the property. Adverse affects to any portion impact the entire feature.	COOP01, CR02, CR05
13102	Multiple mine plan alternatives exist that could provide mitigation for or prevent long-term environmental damage... •paste or dry tailings disposal to reduce the project footprint and use less water (decrease risk of surface and groundwater pollution); •perpetual pumping of the west pit to prevent a pit lake from forming (protect surface and groundwater); •back-filling all waste rock into the east, central and west mine pits (reduce the mine foot print at closure, reduce contaminant runoff to surface and groundwater, reduce volume of water requiring perpetual treatment, restore mine site wetlands); •provide reverse osmosis treatment at the mine site immediately rather than waiting until year 40 (augment water loss in adjacent high quality wetlands in the Partridge River watershed), and; •underground mining (multiple environmental benefits).	ALT03, ALT04, ALT06, COOP01
13105	The Fond du Lac Band of Lake Superior Chippewa conducted meetings in February 2011 to discuss past and current traditional uses by the Band of the area in the NorthMet project. It was expected from the beginning that the distance between the NorthMet area and the Fond du Lac Reservation would reduce the chances of documenting specific use of the area by Fond du Lac Band members.	COOP01, CR01, CR05, CR06
18240	a comment I've been struggling to articulate, regarding how the ash dump is proposed to be dealt with under the proposed project; like many other issues in the SDEIS, it seems to be getting kicked down the road for future permitting discussions. But if the plant site model has been constructed to not incorporate the ash dump (which is full of toxics), when in fact it does, this is another significant potential source of contaminant loading that is not accounted for in the water modeling and water quality predictions.	WR028
16321	you might re-consider extending the comment period to allow all of us the time we need to truly understand how the models have informed environmental impact predictions.	NEPA07
16322	At literally the eleventh hour of a 90-day public comment period, we just shouldn't be trying to figure out basic model construction, source loads, and water quality impacts; it should be clear in the SDEIS.	PD29
19571	The NEPA "hard look" requires agencies to "exercise a degree of skepticism in dealing with self-serving statements from the prime beneficiary of a project" when analyzing alternatives. Contrary to the explicit requirements of the Council on Environmental Quality (CEQ) rules, the SDEIS does not evaluate or examine in any substantive way potentially viable Project alternatives. Even the no action alternative is lacking in detail and analysis. Tribal cooperating agencies identified this deficiency in the DEIS, consistently brought it forward for discussions throughout the SDEIS process, and US EPA cited the lack of alternatives as a factor when issuing an EU-3 rating for the DEIS.	ALT14, ALT21, COOP01
19573	Although the SDEIS was revised to reflect the Project proponent's preferred action, the only alternative analyzed in any detail concerns simply the acreage of the proposed land exchange. This is not consistent with the CEQ regulations that require federal agencies to identify an agency-preferred alternative in a draft EIS. Yet the SDEIS states "At this time, the Co-lead Agencies have not identified a preferred alternative, and for the USACE, Appendix B of 33 CFR Part 325 supersedes the CEQ requirement to identify an agency-preferred alternative."	ALT21, ALT23, COOP01
19575	There is no evaluation or identification in the SDEIS of the 'least environmentally damaging practicable alternative' ("LEDPA") as required before approving a CWA §404 wetlands permit.	COE04, COOP01

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19577	A fundamental operational component of the Proponent’s preferred alternative analysis described in the SDEIS is to deposit their reactive slurry tailings on top of existing taconite tailings in an unlined basin that is currently required, under a Consent Decree, to remediate seepage that has already polluted the nearby ground and surface waters. The SDEIS analysis assumes a tailings basin seepage capture rate of 95% – a performance efficiency that has not been demonstrated anywhere in the US, nor is it feasible since the tailings basin was constructed (per standard Minnesota ferrous mining practices) without a liner. There is an existing seepage capture system installed at SD026 as a requirement of the Consent Decree, yet it has proven to be so ineffective that Cliffs Erie LLC (the responsible party) has proposed building an additional dam and capture system further downstream.	COOP01, GT02, PD12, WR020, WR117
19578	Dewatered or paste tailings placed on a liner and covered could substantially minimize the mass and concentration of pollutants reaching the Embarrass River watershed wetlands and the Embarrass River. This is a modern mine waste management technique used by many mines in the US and around the world, yet it has never been evaluated as an alternative for this project. “Converting to paste tailings technology from conventional slurry tailings at most mines makes sense, both environmentally and economically. Paste tailings use less water, require less land, do not require engineered containment dams, generate less acid and contaminants, reduce long-term costs and allow for early reclamation. Slurry tailings use and discharge large volumes of water, require dust control measures, require large land areas and containment dams for disposal, and create contaminated water that must be captured and treated.”	ALT10, ALT16, COOP01
19580	The State of New Mexico, Office of Natural Resource Trustee, requires perpetual pumping of the mine pits to prevent formation of a pit lake at the Chino and Tyrone copper mines, specifically for the protection of groundwater. The experience of numerous western mines discharging plumes of polluted water into the bedrock aquifer from leaking mine pits, tailings basins and waste rock piles, highlights a predictable problem that is not only difficult but expensive to fix. By requiring perpetual pumping [alternative not considered in the SDEIS] of the mine pit, the regulatory agencies would minimize leakage of contaminated water into the surrounding bedrock aquifer, and thereby protect groundwater that the State of Minnesota is required to protect as source of drinking water.	ALT04, COOP01
19581	In the 2009 DEIS, the co-lead agencies maintained that all waste rock should be considered reactive. SDEIS Table 3.2-8, Waste Rock Characterization Properties , acknowledges that the Category 1 waste rock (rock that is <math>0.12\%</math> sulfur), which constitutes 70% of the volume of waste rock, has a “low potential to generate acid, but may leach metals.” Back-filling all of the mine pits with all of the waste rock would reduce the final surface footprint of the mine at closure, and make possible 526 acres of wetland restoration where the Category 1 stockpile is now proposed to be stored in perpetuity. This alternative would prevent the need for a permanent separate seepage capture system around an unlined waste rock pile, as proposed in the preferred alternative, which would have to perform at an above-optimum capture rate in perpetuity to comply with Minnesota Water Quality Standards (“MN WQS”). Capping and re-vegetating the mine pits after backfilling with waste rock would prevent deep infiltration of precipitation and reduce mobilization of toxic metals.	ALT06, COOP01
19582	The SDEIS inexplicably removes the stockpile liner described in the 2009 DEIS for Category 1/2 waste rock in the current project proposed action. From Table 3.2-16 Comparison of DEIS and SDEIS NorthMet Project Proposed Action: DEIS: Category 1 and 2 waste rock would be stored in a permanent lined/covered stockpile (Category 1/2 Stockpile) north of the west pit (years 1-11) SDEIS: Category 1 waste rock mined from years 1-13 would be stored in an unlined, permanent stockpile north of the West Pit. The stockpile would have a geomembrane cover system at completion and surface water and groundwater collection system would encompass the entire stockpile and direct water to the Mine Site WWTF. If not backfilled, the Category 1 waste rock stockpile must be lined.	ALT07, ALT13, COOP01
19583	However, combining the two alternatives of perpetual pumping and backfilling the Category 1 waste rock pile would substantially reduce the risk of polluting groundwater and wetlands in the Partridge River watershed.	ALT04, ALT06, COOP01

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19584 The Minnesota Department of Natural Resources (DNR) and US Army Corps of Engineers (USACE) superficially evaluated and subsequently dismissed underground mining as an alternative to the proposed open pit Project for the 2009 DEIS. The co-lead agencies eliminated this alternative from further evaluation because it would have had “a significantly reduced rate of operation that would not be considered economically feasible, and, therefore, would not meet the Purpose and Need of the Project.” Tribal cooperating agencies urged the co-lead agencies, now including the US Forest Service (USFS), to do a more robust analysis of the underground mining alternative for the SDEIS, but the co-lead agencies did not “exercise a degree of skepticism in dealing with self-serving statements from the prime beneficiary of a project” when analyzing this alternative. This alternative was eliminated by the Project proponent based purely on an economic decision that underground mining would not be as profitable as open pit mining. The co-lead agencies claim that “it was not possible to undertake a quantitative, side-by-side assessment of the underground mining alternative.” An underground mine would have a reduced mining rate and life of mine, employed fewer workers for a shorter period of time, and reduced state and local tax revenues. Although the underground mining alternative would offer substantial environmental benefits (significantly less wetland destruction, less mine-generated waste, less groundwater and surface water pollution generated and requiring treatment and control, less reclamation and closure activities, less nuisance and reactive dust to be controlled, less noise and vibration impacts, less visual impacts), the economic and intrinsic value of those benefits are not even estimated. In addition, an underground mine project would not require a federal land exchange, resulting in lower start-up costs and avoiding the permanent loss of high quality resources (as discussed in later comments on Land Exchange impacts). Based upon an incomplete analysis of the benefits of an underground mine, the co-lead agencies determined that this alternative would result in reduced socioeconomic benefits, and; “PolyMet would not move forward with an unprofitable project, thus any potential environmental or socioeconomic benefits associated with this alternative are moot.”

ALT01, COOP01

19585 The co-lead agencies determined that underground mining was considered technically feasible, but concluded that “PolyMet is a private sector and for-profit company, the value of the saleable material would need to provide sufficient income to cover operating cost (which includes, but is not limited to, the cost of mining, processing, transportation, and waste management), capital cost (to build and sustain facilities), an adequate return to investors, reclamation, and closure costs and taxes. An underground mining project would leave most of the NorthMet Deposit unmined because of its low metal value relative to the cost of mining and mineral processing. Other material would have to be left in place for safety reasons, to prevent collapse.” Therefore, “the Co-lead Agencies found that while underground mining is technically feasible, available, and would offer significant environmental benefits over the proposed NorthMet Project, it would not be economically feasible and would not meet the Purpose and Need. Since the underground mining alternative would not meet all of the screening criteria, it is not considered to be a reasonable alternative. Therefore, the underground mining alternative was eliminated from further evaluation in the SDEIS.” The SDEIS does not contain the appropriate level of detail required to eliminate this alternative. The conclusion that underground mining is neither viable nor preferable remains substantially unjustified, despite repeated requests by the tribal cooperating agencies for further analysis.

ALT01, COOP01

19587 The Project Proponent, without considering the economics of perpetual treatment, the purchase of thousands of acres of land for the federal land exchange, direct and indirect wetland mitigation costs, etc., concludes in their economic analysis that underground mining is “[n]ot economically viable” while simultaneously claiming that backfilling the west pit would create encumbrances not allowed in their mineral lease due to mineral resources located below the west pit that could only be accessed through underground mining. This is not the appropriate rigor in a cost-benefit analysis for thoroughly evaluating an EIS alternative. The CEQ regulations require that, where a cost-benefit analysis is “relevant to the choice among environmentally different alternatives,” there are a variety of additional requirements, including “analysis of un-quantified environmental impacts, values, and amenities,” in addition to other CEQ alternatives rules.

ALT01, ALT03, COOP01

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19588	As already argued in the Tribal Position, significant additional study of the underground mining alternative is mandated, and the SDEIS offers no new discussion of the reasons for rejecting the alternative. The economic viability of an underground mine depends on a variety of factors including ore grade, market prices, cost of tailings management, and waste rock disposal. A study of this particular deposit was performed by the prior owner of the site, US Steel, which actually recommended underground mining. PolyMet is well aware of this study, given that the company included it in a filing with the Securities and Exchange Commission in 2003. In fact, by examining geologic cross-sections showing the distribution of ore by depth, it appears that there are substantial ore reserves at depths that likely could not be accessed by the proposed open-pit mine.	ALT01, COOP01
19589	The environmental costs of open-pit mining and the requisite wetland mitigation and above-ground disposal of tailings and waste rock are immense. These environmental costs, combined with the most current understanding of deposit ore grades, reasonably potential metals prices, and the costs associated with perpetual treatment must all be evaluated to determine the feasibility of this alternative.	ALT01, COOP01
19594	Even the No Action Alternative analysis is deficient: nder the NorthMet Project No Action Alternative, the NorthMet Project Proposed Action would not occur. The consideration of a No Action Alternative is required to be evaluated in the SDEIS in accordance with NEPA and MEPA.	ALT14, COOP01, WR108
	If the NorthMet Project Proposed Action is not approved, the Mine Site would be returned to pre-exploration conditions under the requirements of exploration approvals to reclaim surface disturbance associated with exploratory and development drilling activities. Other existing surface uses would be allowed to continue consistent with the Forest Plan. No further upgrades or new segments would be constructed along the existing power transmission line, railroad, or Dunka Road, which would continue to be used by their private owners. At the brownfield Plant Site, Cliffs Erie would continue to complete closure and reclamation activities as specified under state permits and plans and the Cliffs Erie Consent Decree. This would include completing activities for the localized affected areas under the Minnesota Voluntary Investigation and Cleanup (VIC) Program, removal of the former Plant Site building, and management of seepage at the Tailings Basin embankment. This evaluation must also acknowledge that there would be no direct disturbance of over 900 acres of high quality wetlands, thousands more wetland acres that would not be indirectly affected, no loss of high quality forested uplands, no further diminishment of wildlife habitat, no permanent loss of treaty resources under the land exchange, no cumulative effects to resources and environmental quality. In fact, water quality should improve substantially under the No Action Alternative, as the Cliffs Erie Consent Decree requires that the closed tailings basin ultimately achieves compliance with MN WQS.	
19595	The SDEIS is approach to considering less environmentally degrading alternatives is fundamentally inadequate. CEQ rules require that the EIS “present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public.” The SDEIS must be revised to fully evaluate reasonable alternatives in the SDEIS, including identifying the federal agency preferred alternative and the LEDPA.	ALT20, COOP01
19597	The Land Exchange Proposed Action, as described in the SDEIS, serves to confirm our concerns for permanent, unmitigated impacts to treaty resources in the 1854 Ceded Territory.	COOP01, LAN05
19599	The Land Exchange Proposed Action does not meet the need of the Bands in the 1854 Ceded Territory. It results in a permanent loss of 382 acres, does not protect fish and wildlife habitat within the Mine Site, does not protect important cultural resources such as wild rice beds, historic trails, and a substantial portion of the Mesabi Widjiu, does not protect the Embarrass, Partridge or St. Louis River watersheds, does not consolidate mineral interests in the private parcels that would be conveyed to the federal estate, does not promote multiple-use values, or fulfill public needs.	COOP01, LAN05
19600	maintaining public land ownership is critical for the exercise of treaty rights. There are 382 acres of Lake County land proposed for the land exchange (Tract 2). This means a net loss, through the exchange, of publicly accessible land for band members exercising their treaty rights.	COOP01, LAN05

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19601	The Forest Service should consider exchange for private lands only in order to maintain - or better yet, increase - the total public land acreage within the 1854 Ceded Territory.	COOP01, LAN05
19603	This language and description [SDEIS 3.1.2, Land Exchange Overview] is misleading; it downplays the largely undisturbed nature and ecological and biodiversity significance of most of the contiguous lands (i.e., the Hundred Mile Swamp, St. Louis River Headwaters Site).	COOP01, LAN06, VEG02
19611	Of the approximately 6,025 acres of MBS Sites of High Biodiversity Significance under the Land Exchange Proposed Action, nearly 2,000 acres of coniferous bog wetlands will be lost to the federal estate and therefore effectively to the Bands, if the Land Exchange Proposed Action is implemented. This is significant because many tribally harvested resources are only available in coniferous bogs (e.g. cranberries, soft-leaved blueberries, sweet flag), and mitigation for coniferous bogs is simply not feasible.	COOP01, CR01, WET05
19612	The exchange of thousands of acres of high quality wetlands and forests containing some of the few remaining wildlife corridors in northeastern Minnesota available to the Bands to exercise reserved 1854 Treaty rights, for lands that have moderate diversity is inconsistent with fiduciary responsibilities that are shared by all federal agencies.	COOP01, CR01, LAN05
19613	The SDEIS attempts to diminish the significance of the loss of these high quality lands by stating “Given the existing lack of overland public access and actual use of the federal lands, as well as historic use of this area for mineral exploration (see Section 4.2.9), the Land Exchange Proposed Action represents little to no change in the actual level of recent or current use of the federal lands.” In fact, historic trails connect what is now Beaver Bay with Lake Vermillion. These trails “are associated with the lives of persons significant in our past” including John Beargrease, Peter Gagnon, and Alec Posey. In more recent history, Bois Forte Band members used a sugarbush near the plant site and harvested wild rice in the Embarrass River near the LTVSMC tailings basin.	COOP01, CR04
19614	The SDEIS does not provide adequate discussion of the adverse effects of the proposed land exchange on wetlands and headwater streams within the St. Louis River watershed/Lake Superior Basin, where the loss of first-order headwaters streams, second-order streams and wetlands have the potential to significantly adversely impact downstream water quality, fisheries, and wildlife that are important to the Bands. The Land Exchange Proposed Action would relinquish water resources within the Lake Superior basin for wetlands and surface water resources outside the Lake Superior basin and the St. Louis River watershed, although still within the 1854 Ceded Territory. Federal lands include 4,164 acres of wetlands within the Lake Superior basin; non-federal lands contain 4,669 acres of wetlands, of which only 373 acres are within the Lake Superior Basin, demonstrating there would be a permanent loss of 3,791 acres of federally managed wetlands within the Lake Superior Basin. It is well known that wetlands play an important role in protecting the quality and condition of downstream waters by retaining floodwaters, sediment, nutrients, and other pollutants. Wetlands also function as thermal refuge for moose when summertime temperatures exceed 14oC, the point at which moose become thermally stressed, and wetlands provide an important forage resource for moose during the open water season.	AQ29, COOP01, CR01, WET14, WR114
19615	the SDEIS concedes that the land exchange will cause irretrievable losses of resources for the Bands	COOP01, CR01
19616	the wild rice waters in Tract 1 are already accessible to the Bands via the Pike River; adding Tract 1 to the federal estate does not provide additional wild rice harvesting opportunities to Band members in the 1854 Ceded Territories even though it would add an additional 126 acres of wild rice beds to the federal estate.	COOP01, LAN05, WR155
19617	This is the essential argument against Alternative B, from the Bands’ perspective. The additional lands would essentially be permanently removed from tribal access, habitat and resources would be degraded, and there would be no compensation via conveyance of lands to the federal estate.	COOP01, LAN05

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19618	The desire to resolve “conflict” between the USFS and the Project proponent, whose goal to develop an open pit mine is barred due to deed restrictions on the federal estate, should not prevail over the federal fiduciary responsibility to the Bands. The potential for more roads and hiking trails may provide more access to the public, but does nothing to promote habitat diversity and long-term ecosystem sustainability that are requirements for the preservation of tribal usufructuary rights. Although the Land Exchange Proposed Action may increase acreage in the federal estate, the countervailing permanent loss of critical wildlife corridors, high quality and diverse land and water resources that would result is simply not in the public interest.	COOP01, LAN05
19619	federal land exchanges are discretionary, and federal agencies cannot approve permits that will have impacts to treaty resources without additional evaluation and mitigation. No mitigation has been identified in the SDEIS for this permanent loss of lands and resources (natural and cultural) to the 1854 Ceded Territory. The public interest determination must include a specific finding that “The intended use of the conveyed Federal land will not substantially conflict with established management objectives on adjacent Federal lands, including Indian Trust lands” (36 C.F.R. 254.3(b)(2)(ii)). This threshold has not been met, and the Fond du Lac Band objects to the implementation of the Land Exchange Proposed Action.	COOP01, CR01, LAN05
19620	in the SDEIS, no detail is provided regarding the estimated amount of financial assurance that would be sufficient for reclamation, closure, mitigation, and remediation of adverse effects from the Project... , the SDEIS provides neither a timeline nor a discussion regarding financial assurance for the existing contamination associated with previous mining activities at the site.	COOP01, FIN05
19621	The financial assurance costs for long-term treatment identified in the SDEIS range from \$3.5 to \$6 million, but appears to be an estimate for monitoring activities only without any long-term wastewater treatment costs.	COOP01, FIN05
19622	The cursory estimate of financial assurance provides little detail about how the cost estimates were derived. Instead, specific discussions about the scale and appropriate instruments for financial assurance have been postponed until the permitting phase of this Project. This approach fundamentally contradicts federal and state environmental policy and the SDEIS must be revised, with significant additional study, to appropriately evaluate closure, mitigation, reclamation, and perpetual treatment cost estimates.	COOP01, FIN13
19623	Long-term treatment of contaminated water; consistency with maintenance-free closure goals: The SDEIS lists the sulfur concentrations of Project waste rock ranging between 0.01 - 5.0% with an average mass-weighted concentration of 0.15%. The Virginia Formation has the highest concentrations of sulfur at 0.4 - 5.0%, and the Duluth Complex 0.13 – 0.6% sulfur. These concentrations are at least equal to, or in some instances significantly higher than the Zortman-Landusky mine waste rock (0.2% sulfur) that requires perpetual wastewater treatment. Just as Zortman-Landusky predicted for their mine project, PolyMet has suggested that “most (70%) of the NorthMet waste rock would be the low-sulfur, non-acid-generating” and will never cause acid mine drainage. Yet the SDEIS speaks to the need for at least centuries of wastewater treatment at both the Mine Site and Plant Site: “Once the West Pit is full (approximately year 40), discharge of treated water from the WWTF to the West Pit would be terminated. The WWTF would be upgraded to RO and include evaporator/crystalizers to convert the RO reject concentrate to residual solids, which would be disposed of at appropriate off-site facilities.”...Based on current GoldSim P90 model predictions, treatment activities could be required for a minimum of 200 years at the Mine Site”...Mechanical water treatment is part of the modeled NorthMet Project Proposed Action for the duration of the simulations (200 years at the Mine Site, and 500 years at the Plant Site). The duration of the simulations was determined based on capturing the highest predicted concentrations of the modeled NorthMet Project Proposed Action. It is uncertain how long the NorthMet Project Proposed Action would require water treatment, but it is expected to be long term; actual treatment requirements would be based on measured, rather than modeled, NorthMet Project water quality performance, as determined through monitoring requirements.”The tribal cooperating agencies have provided substantial evidence that the modeling for the NorthMet Project Proposed Action potentially underestimates those “highest predicted concentrations.” This will affect both volumes of water requiring treatment and duration of the need for mechanical treatment.	COOP01, PD03, WR056

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19624 After refill, the West Pit water level would be controlled by pumping to the WWTF to prevent surface water overflow from the pit lake. However, release of pit lake water to the West Pit Surficial Flowpath would continue. The WWTF would also receive low flow rates from the Category 1 Stockpile groundwater containment system. The WWTF effluent would be discharged into a tributary channel that flows into the Partridge River at the location shown on Figure 5.2.2-15. Mine site: The WWTF would continue to operate during long-term closure, treating excess water from the West Pit and discharging the effluent to the small Partridge River tributary. The typical discharge rate from the WWTF is predicted to be 285 gpm. The water balance model predicts periodic temporary higher treatment/discharge rates to account for conditions when the freeboard in the pit becomes too small. By pumping pit lake water to the WWTF, the pit water level would be managed to always provide sufficient freeboard to absorb extreme precipitation events without overflowing. The estimated discharge for this condition is 570 gpm. In the water balance model, the occasional switch to the “high” treatment flow pushes the long-term average discharge rate to 290 gpm. Plant Site: During long-term closure, the WWTP would continue to treat water collected by the Tailings Basin containment systems. Some of the treated effluent would be used for flow augmentation to Unnamed Creek, Mud Lake Creek, Trimble Creek, and Second Creek. It is predicted that Colby Lake water would no longer be needed for augmentation (Barr 2013a). Tailings seepage bypassing the containment system (approximately 19.4 gpm) would continue to enter the North, Northwest, and West Surficial flowpaths, and migrate slowly toward the Embarrass River. By year 200 in closure, which reflects when effects would have peaked and would be decreasing, the WWTF would be discharging and all groundwater contaminant loads would have reached the Partridge River (except negligible contributions from the bedrock flowpaths). Whatever the long-term goals to transition to non-mechanical treatment, this acknowledges a minimum of 200 years of operation of the WWTF. It is clear that the NorthMet Project Proposed Action would require long term treatment of water at both the Plant and Mine Sites. The minimum duration of this treatment is on the order of centuries, but the SDEIS does not provide an estimate of when mechanical treatment would no longer be needed to meet MN WQS. Therefore, as provided in multiple comments on the preliminary SDEIS, Fond du Lac conservatively assumes that water treatment for the proposed PolyMet mine is perpetual and the SDEIS should be clear on this issue.

COOP01, WR035, WR036

19625 However, instead of clarifying this factor, it appears that the co-lead agencies are attempting to minimize the significance of the necessity for long term/perpetual treatment by using vague and confusing language in the SDEIS. The specific language describing long term water treatment has changed during the development of the document, even though the model results have not. The co-lead agencies use creative wording to obscure the results of the modeling; this is misdirection at best and highly inappropriate for the co-lead agencies to present to the public.

COOP01, NEPA09, WR035

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**Comment ID    Comment Text**

**Theme Codes**

**Sender Name (Submission ID)**    Fond du Lac Band (42920)

19626 In addition to water treatment, there will also need to be a substantial investment in long-term or perpetual operation, maintenance and replacement of other environmental controls for the Project, including seepage capture and pumping at multiple locations at both the mine site and plant site, repair and replacement of liners, managing appropriate stream augmentation and Tailings Basin pond elevation, and pumping, treating, and disposal of seepage from the HRF: The Tailings Basin pond would primarily receive solute loadings from the tailings, treated Mine Site process water (primarily during years 1 to 11, and possibly through year 20, depending on the NorthMet Project Proposed Action water budget), and captured seepage from the groundwater containment system. The Tailings Basin pond, in turn, would become a primary source of contaminants as its water seeps into the tailings. Therefore, the composition of the Tailings Basin pond, which would be a permanent feature of the Tailings Basin, would be an important component in the quality of water that would be discharged from the Tailings Basin. Thus, PolyMet proposes to use the WWTP to treat the pond water during reclamation, and as necessary during closure, to maintain the design water level and prevent overflow. The presence of the pond in closure would provide benefits as it would create a saturated layer that would permanently reduce the oxygen flux and associated solute release in the underlying tailings. The groundwater containment system would continue to operate during reclamation and closure, although in those phases, the seepage could not be reused as process water, but would be treated at the WWTP and used to accelerate filling of the West Pit (during reclamation) and for streamflow augmentation (during closure). Although it is designed to capture all of the Tailings Basin seepage, the groundwater containment system is assumed to capture 90 percent of the groundwater flow that approaches the system (PolyMet 2013g). During reclamation, all WWTP effluent would be used to help flood the West Pit; therefore, during this phase, all augmentation water would come from Colby Lake (approximately 1,600 gpm). In closure, it is expected that effluent from the WWTP alone (estimated at approximately 2,000 gpm) would be sufficient to meet the minimum flow augmentation requirements of the tributaries without requiring additional water from Colby Lake.

COOP01, PER03, WR035, WR037

19627 The Tailings Basin pond would primarily receive solute loadings from the tailings, treated Mine Site process water (primarily during years 1 to 11, and possibly through year 20, depending on the NorthMet Project Proposed Action water budget), and captured seepage from the groundwater containment system. The Tailings Basin pond, in turn, would become a primary source of contaminants as its water seeps into the tailings. Therefore, the composition of the Tailings Basin pond, which would be a permanent feature of the Tailings Basin, would be an important component in the quality of water that would be discharged from the Tailings Basin. Thus, PolyMet proposes to use the WWTP to treat the pond water during reclamation, and as necessary during closure, to maintain the design water level and prevent overflow. The presence of the pond in closure would provide benefits as it would create a saturated layer that would permanently reduce the oxygen flux and associated solute release in the underlying tailings. The groundwater containment system would continue to operate during reclamation and closure, although in those phases, the seepage could not be reused as process water, but would be treated at the WWTP and used to accelerate filling of the West Pit (during reclamation) and for streamflow augmentation (during closure). Although it is designed to capture all of the Tailings Basin seepage, the groundwater containment system is assumed to capture 90 percent of the groundwater flow that approaches the system (PolyMet 2013g). During reclamation, all WWTP effluent would be used to help flood the West Pit; therefore, during this phase, all augmentation water would come from Colby Lake (approximately 1,600 gpm). In closure, it is expected that effluent from the WWTP alone (estimated at approximately 2,000 gpm) would be sufficient to meet the minimum flow augmentation requirements of the tributaries without requiring additional water from Colby Lake. These statements indicate the need for perpetual WWTP operation, if for no other reason than needing clean water for stream augmentation, which will be required in perpetuity to compensate for the hydrologic impacts of the Tailings Basin.

COOP01, WR035, WR037, WR124

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19628	The rate of drainage would decrease over time as the pore water within the hydrometallurgical residue is collected and removed. Once the entire facility is closed, the volume of water from the drainage collection systems would decline. In the long term, the volume of water requiring treatment would decline to the point that the remaining reclamation activity may consist of periodic pumping of remaining drainage into tank trucks for transportation, treatment, and disposal, as appropriate, and of inspection of the closed cells to verify integrity of the reclamation systems...The water quality of both mine pits, however, is predicted to improve over time as the pits become flooded, thereby effectively eliminating oxidation of the pit walls, the primary source of solutes, except for the upper few feet where water levels may fluctuate. Figures 5.2.2-37, 5.2.2-38, and 5.2.2-39 show how the water quality in the West Pit is predicted to improve over time for three representative solutes: cobalt, nickel, and sulfate. It is expected that eventually the solute concentrations in the pits would stabilize to more or less steady-state values, although the timeframe for this would likely be greater than 200 years as indicated by Figures 5.2.2-37 to 5.2.2-39, which show solute concentrations continuing to decrease at year 200, although still above water quality standards. These predicted improvements in water quality suggest that the WWTF may not need to operate permanently, but that at some point, non-mechanical treatment systems may be sufficient to meet water quality standards. The SDEIS frequently states the long-term goal is to transition to non-mechanical treatment, but there is little evidence to suggest that current treatment technologies can consistently treat large volumes of water to meet WQS.	COOP01, PD06, WR137
19629	Furthermore, constructed wetlands would require substantial acreage to handle the volume of wastewater that will perpetually be collected, and do not function well in our cold climate for at least half of the year (when vegetation is not actively growing). They are not likely to be able to treat wastewater sufficiently to consistently meet water quality standards, including the wild rice sulfate criterion. But perhaps most the most significant factor to consider for the likelihood of successfully transitioning is that non-mechanical treatment, at least at the Mine Site, necessitates the seasonal application of the wild rice sulfate criterion: "...However, the non-mechanical system will be designed to discharge only during a portion of the year, to comply with the seasonal discharge criterion for wild rice downstream of the Mine Site. The design of the West Pit Overflow Non-Mechanical Treatment System is based on a discharge period of two months, September and October."	COOP01, WR137, WR153
19630	"However, the non-mechanical system will be designed to discharge only during a portion of the year, to comply with the seasonal discharge criterion for wild rice downstream of the Mine Site. The design of the West Pit Overflow Non-Mechanical Treatment System is based on a discharge period of two months, September and October." As described in the AWMP, this type of non-mechanical treatment system cannot meet the 10mg/l sulfate criterion. At this time, the continued implementation of the seasonal application of that criterion is highly questionable as recent research conducted by the University of Minnesota on behalf of the MPCA indicates excess sulfate loading is detrimental to wild rice regardless of the time of year.	COOP01, WR137, WR153
19631	The SDEIS requires substantially more public transparency and less equivocation on what is arguably one of the most fundamental issues at stake for this project: how long will the company be required to flawlessly operate and maintain expensive mechanical treatment to comply with MN WQS? Clearly there are other engineering controls and management actions that will absolutely have to flawlessly operate and require maintenance in perpetuity (seepage collection, liners, pumps, waste rock stockpile cover systems, waste disposal, stream augmentation, Tailings Basin pond elevation management). This singular issue has significant repercussions for the public interest determinations and the scale of required financial assurance.	COOP01, PD03, WR036
19632	The SDEIS identifies 29 Areas of Concern (AOCs) that are now PolyMet's legal responsibility, but still does not provide the necessary clarity about the status of remedial investigations and/or actions necessary to clean up the contamination that occurred over decades of taconite mining and processing.	COOP01, HAZ05
19633	The SDEIS does not provide sufficient information for the public to understand whether the NorthMet Project Proposed Action will be required to remediate these and other AOCs before commencing project operations, or be allowed to defer remediation until closure. It is not clear in the SDEIS how the Voluntary Investigation and Cleanup ("VIC") program requirements will be applied to PolyMet	COOP01, HAZ05

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19634	Cliffs Erie (now Cliffs Natural Resources) was party to a Consent Decree and approved work plan(s) with MPCA regarding their remedial responsibilities, but there is little information in the SDEIS for the public to be assured regarding the need for PolyMet to enter into a legally binding agreement and develop approvable work plans to address their responsibilities.	ALT14, COOP01
19635	It seems reasonable to expect PolyMet to clean up all legacy contamination as quickly as possible; in fact, remedial actions should be integrated with the ‘refurbishing’ actions they plan to do to re-tool the taconite processing facilities to accommodate their processing needs.	COOP01, HAZ05
19636	the public may not realize that the actual cleanup of LTV’s legacy contamination may be deferred until reclamation and closure of the NorthMet Project. This timeline is not acceptable, and the SDEIS should not be vague about the pace of fulfilling remedial requirements.	COOP01, HAZ05
19637	Inadequate hydrologic and geochemical characterizations using all existing data; insufficient new data to support modeling and assumptions. Many of the deficiencies in site characterization and water modeling from the 2009 DEIS persist in the 2013 SDEIS despite some new data collection (not all of which was used) and new modeling (using unrealistic or unsupported assumptions and neglecting to consider critical features). As detailed in extensive comments submitted by tribal cooperating agencies to the co-lead agencies over the past seven years, water quality analyses for the Partridge and Embarrass Rivers are inadequate. Water modeling results, whether deterministic (DEIS) or in the form of probability distributions (SDEIS) are based on flawed understanding of hydrology at both the mine site and plant site. One example of this flawed understanding is the error in baseflow calculations, which is carried forward in the MODFLOW hydrologic modeling. At the mine site, MODFLOW under-predicts the amount of water that would flow into the mine pits and thus under-predicts the amount of water treatment needed for both short and long term closure. At the plant site, the MODFLOW model is constructed in a way that is not representative of the site’s physical conditions and therefore yields results that are not logical.	COOP01, WR011, WR058, WR060, WR071, WR093, WR103, WR176, WR179
19638	"Hard rock mining affects fresh water through heavy use of water in processing ore, and through water pollution from discharged mine effluent and seepage from tailings and waste rock impoundments." Acid mine drainage (“AMD”) is one of the greatest environmental liabilities associated with mining, especially in pristine, water-rich environments like the Project mine site, that have economically and ecologically valuable natural resources. There are no hard rock surface mines that exist today that can demonstrate that AMD can be stopped once it occurs on a large scale. Inaccurate pre-mining characterization and interpretation often results in a failure to recognize or predict impacts to water quality and aquatic life. Evidence from literature and field observations suggests that permitting large scale surface mining in sulfide-hosted rock with the expectation that no degradation of surface water will result due to acid generation imparts a substantial and unquantifiable risk to water quality and fisheries. In a report comparing predicted and actual water quality at hard rock mines, two types of characterization failures were identified that led to differences between the predicted water quality in EIS documents and the actual water quality either during or after mining began. These included: (1) insufficient or inaccurate characterization of the hydrology. The authors reported primary causes of hydrologic characterization failures as overestimations of dilution, lack of hydrological characterization, overestimations of discharge volumes, and underestimations of storm size. (2) insufficient or inaccurate geochemical characterization of the proposed mine. The primary causes of geochemical characterization failures were identified as lack of adequate geochemical characterization, in terms of sample representativeness and sample adequacy. The primary causes of mitigation failures were that mitigation measures were not identified, were inadequate, or were not implemented; waste rock mixing and segregation was not effective; liners leaked; tailings were spilled; or embankments failed, and land application discharge was not effective. The NorthMet Project Proposed Action, as defined in the SDEIS includes all of these characterization failures.	COOP01, PD01, WR128
19639	The Project overestimates dilution of polluted water by underestimating baseflow in the bedrock surficial aquifer at both the mine and plant sites.	COOP01, WR165

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19640	A fundamental lack of hydrologic characterization enables PolyMet to reach a fictitious conclusion that there will be no water pollution resulting from the Project. No bedrock monitoring wells were installed near the tailings basin. The number of groundwater samples used to model the Mine Site included three or more samples from each of 23 monitoring wells in the surficial aquifer (a 24th well was dry after the first sampling, so it only provided a single sample). Of these, 12 were new monitoring wells installed in the surficial aquifer in 2012, yet data collected from them was not used to model and predict potential impacts to water surrounding the Project. Storage coefficients used to model the entire Plant site area are not consistent with any peer reviewed scientific literature.	COOP01, WR071, WR095
19641	The hydrology model that was applied used outdated data collected at a significant distance from the site. The Project XP-SWMM model is based on a stream gauging station for the Partridge River that is seventeen miles from the mine site and the data from that station are twenty years old ; and stream gauging data for the Embarrass River that is based in data that is more than fifty years old from eleven miles downstream. Therefore, the results are highly unlikely to be representative of current conditions at the mine or plant site. This baseline hydrologic data deficiency has been carried forward from the 2009 DEIS, despite ample time and opportunity to collect sufficient new hydrologic data.	COOP01, WR003, WR071, WR086, WR091, WR175
19642	Underestimation of storm size and frequency is a serious problem for capture and treatment of polluted water from the Category 1 waste rock stockpile and tailings basin, tailings basin stability, and stormwater run-off from the Overburden Storage and Layout Area (OSLA). Project estimates were based on one-hundred-year storm events. Before recognition of climate change impacts, this would have been a reasonable assumption. Now, storm severity and frequency suggest that what was previously considered a one-hundred-year storm event may occur once every ten years.	COOP01, GT15, WR077, WR180
19643	Many mitigation measures were not identified or evaluated using the required NEPA “hard look”. Those mitigation measures that have been identified and carried forward as the Proposed Project are inadequate, especially the tailings basin seepage capture system. The tailings basin is unlined, and the seepage capture system has not been designed to collect any seepage from the east side of the tailings basin. This flow path for project pollutants to reach surface and ground water has not been addressed at all. The waste rock mixing and segregation has not been demonstrated to be effective at other similar projects. Liner leakage rates are very optimistically estimated using solid waste landfill average leakage rates (lined solid waste landfills are much smaller).	COOP01, NEPA14, WR054, WR126
19644	There are no predictions or contingency plans addressing the potential for tailings piped from the processing plant to the tailings basin could be spilled, or that tailings embankments may fail. The Hydrometallurgical Residue Facility (HRF) is proposed to be constructed in an area that is currently under water, and has a prominent historic drainage channel that has not been accounted for in project design or water modeling.	COOP01, WR066, WR131, WR132
19645	Project baseline data used for both the Mine Site and the Tailings Basin are still insufficient, even though this deficiency was highly criticized by many commenters on the 2009 DEIS. A comparison of hydrologic data that was collected for two other projects in the region demonstrates that the PolyMet project is data-poor in the area of basic hydrology, much less mitigation.	COOP01, WR023, WR071
19646	there is no explanation for the failure to use pre-mining flow and sulfate data available through DNR fisheries reports to determine potential water quality and quantity impacts, or cumulative effects to flow and water quality in the Embarrass, Partridge, or St. Louis Rivers. In fact, decades-old flow data (1942 – 1964) was used instead of recently collected data in the Embarrass River watershed even though that historic flow data precedes any mining. Surface water and groundwater quality and quantity data collected for the Minnamax Project, LTVSMC Dunka Pit, and the VIC program were listed in SDEIS, but largely ignored in water quality and quantity predictions.	COOP01, WR003, WR023, WR071, WR175
19647	Extensive experience from other hard rock mines and their faulty predictions of water quality impacts should compel the co-lead agencies to recognize the need for significant improvements to the modeling evaluations.	COOP01, PD26, WR023, WR071, WR189

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19648	Inadequate water quality impacts analysis. From SDEIS 5.2.2, Water Resources: With the proposed design modifications and engineering controls, the water quality model predicts that the NorthMet Project Proposed Action would not cause or increase the magnitude of an exceedance of the groundwater and surface water quality evaluation criteria at the P90 level for any of 28 solutes at 29 groundwater or surface water evaluation locations within the Partridge River and Embarrass River watersheds, with two exceptions: Aluminum...Lead...Evidently, the public is expected to uncritically accept the project proponent’s assertion that a 700-ft deep open pit sulfide mine, a 526-acre permanent reactive waste rock stockpile, a pit lake requiring water treatment in perpetuity, a tailings basin that has already contaminated ground and surface water that now will host reactive sulfide tailings, and a permanent hazardous waste facility constructed within a wetland, will collectively result in only two exceedances of water quality standards – and they are not even directly attributable to the Project Proposed Action! This stunning conclusion is a result of flawed modeling assumptions (baseflow, hydraulic connectivity, etc.), dubious decisions on data usage (omitting ‘outliers’, concentration caps, etc.), fuzzy compliance thresholds, and inordinate reliance on engineering controls that must perform flawlessly, most of them in perpetuity.	COOP01, WR003, WR056, WR071, WR072, WR082, WR128, WR129
19649	Surface water quality remains insufficiently characterized or left uncharacterized, and the defects in analysis are profound in this area.	COOP01, WR003, WR017, WR018, WR021, WR115
19650	There have not been any water samples collected from lakes in proximity to the tailings basin (Hiekillilla, Mud, Kaunonen, or Hay Lakes) to determine if the pollutants found in the surface and groundwater at the existing tailings basin have caused contamination of those waterbodies.	COOP01, WR064, WR075, WR109, WR197
19651	The monitoring wells that do exist near the tailings basin have concentrations of pollutants including iron, sulfate, manganese, aluminum, and fluoride that exceeded drinking water standards. But because of the limited distribution of monitoring wells, the extent of the existing contaminant plume is not known. No bedrock monitoring wells have been drilled in the vicinity of the tailings basin. However, domestic wells near the northern property line show substantial contamination of the groundwater aquifer.	COOP01, HU03, WR008, WR064
19652	Regardless, modeling of PolyMet contaminants at the tailings basin did not take existing pollutant concentrations into account, and pretends that existing contamination is an acceptable “baseline” from which only new contamination should be measured.	COOP01, WR082, WR109
19653	The assumption that 93% of the seepage from the tailings basin can be captured is unrealistic. Tribes requested the co-lead agencies or their contractor to provide any references for the 90% or greater capture efficiency rate they were confident could be achieved; they were not able to provide a single example from anywhere in the world.	COOP01, WR018
19654	The primary purpose of the seepage capture at the Proposed Project is to achieve compliance with MN WQS, but it is not likely to be successful, based upon limited but relevant regional experience.	COOP01, WR018, WR020
19655	On pages 5-121 and 5-158, the SDEIS maintains that the seepage collection system installed at the south side of the existing tailings basin has “essentially eliminated the flow of Tailings Basin seepage into Second Creek”. This statement is clearly not supported by the facts. PolyMet and the state regulatory agencies are fully aware that that this seepage pumpback system is not nearly as effective as claimed in the SDEIS.	COOP01, WR101, WR117
19656	There is simply no evidence to support the rosy scenario that PolyMet will be able to capture 97% of the shallow seepage and 90% of the deep seepage from an unlined, purposefully ‘leaky’ tailings basin, despite the co-lead agencies’ assurances. The SDEIS must be revised to accurately describe the ineffectiveness of the current seepage collection system, and the need for a redesigned system or additional mitigation must be clearly stated. The SDEIS must evaluate the impacts of polluted tailings basin seepage to Second Creek and the Partridge River.	COOP01, PD08, WR018, WR117, WR118, WR133

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19658	The SDEIS claims that construction of a groundwater containment system along the north, northwest and west sides of its unlined tailings basin “would capture virtually all of the Tailings Basin seepage presently flowing in those directions to restore water quality” (SDEIS p. 5-174). Without even a single bedrock monitoring well installed to confirm or deny this assumption, the SDEIS maintains that this is prediction is “conservative”, because the modeling done by PolyMet assumes that bedrock hydraulic conductivity is “negligible” (SDEIS, pp. 5-68 - 5-69). Disturbingly, the tailings basin model uses storage coefficients that are not found anywhere in peer reviewed scientific literature.	COOP01, PD08, WR008, WR018, WR071, WR095, WR099
19659	The storage coefficient incorporated in the plant site model (including the tailings basin) for bedrock is 0.20, and for the surficial deposits 0.0002 (SDEIS p.5-41), suggesting that the bedrock contains several orders of magnitude more water than the surficial deposits.	COOP01, WR095
19660	the modeled hydraulic conductivity and/or modeled storage coefficients cannot be relied upon to estimate the amount of seepage that will bypass the seepage capture system, or the amount of time before seepage upwells to surface waters in adjacent wetlands and the Embarrass River, where MN WQS must be met.	COOP01, WR019, WR128
19661	Another major deficiency in the plant site model is that seepage capture at the flotation tailings basin, as modeled with MODFLOW and GoldSim, does not account for any seepage out of the east side of the basin. SDEIS Figure 3.2-27, that indicates continuous bedrock on the east side of the tailings basin, is incorrect and must be corrected.	COOP01, WR054
19662	The modeling approach used by PolyMet has placed an artificial and unrealistic no-flow boundary on the east side of the tailings basin, when a critical evaluation of hydraulic head clearly shows the potential for substantial groundwater movement to east. Because of this this flawed assumption, there has been no contaminant transport modeling or water quality impacts analysis for seepage leaving the east side of the tailings basin.	COOP01, WR054, WR102
19663	Also, according to the plant site surficial geology and depth to bedrock figures , the thickest layer of glacial till for the entire Proposed Project occurs around the tailings basin, representing, essentially, the biggest “pipe” for conducting contaminated tailings basin seepage to downgradient wetlands and eventually the Embarrass River. Tribal agency re-analysis using MODFLOW for the east side of the tailings basin reveals that this is likely the most significant discharge area for the entire tailings basin.	COOP01, WR093
19664	The SDEIS maintains that mine pit dewatering impacts will be very limited or non-existent based on an assumption carried forward from the DEIS that there is little or no connection between the bedrock and surficial aquifers. This assumption is based solely on an unsupported “professional opinion,” when in fact there is ample evidence that there may be substantial connection between the bedrock and surficial aquifers. Such a connection indicates that dewatering the mine pits could cause significant drawdown of the water table in the surficial aquifer, potentially dewatering wetlands and ephemeral streams.	COOP01, WR010, WR012, WR013
19665	Both tritium and unionized ammonia are classic indicators for a strong connection with surface water...Unionized ammonia and tritium in the deep boreholes suggest that travel time of contaminants through bedrock fractures will be on the order of decades, not the hundreds or thousands of years that are assumed in the SDEIS.	COOP01, NEPA09, WR010, WR013
19667	The lack of fracture and fault analysis is a major deficiency of this SDEIS.	COOP01, WR007, WR008, WR012, WR013
19668	predicted water quality impacts and ineffective mitigation methods referenced in the [Copper-Nickel] Study were ignored when the technical documents and SDEIS were drafted for PolyMet.	COOP01, WR023, WR203
19669	The SDEIS also diminishes the lessons learned from the Dunka Pit, located on the former LTVSMC site approximately five miles north and east of the PolyMet Project mine site.	COOP01, WR023

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19670	The SDEIS has not adequately evaluated the potential for impacting drinking water sources, and it is clear from the state regulatory agencies' uncertainties about the frequency, volume, and water quality of other mine discharges (i.e., the Peter Mitchell Pit) even while regulated under permits, that this issue remains a significant deficiency in the SDEIS analysis.	COOP01, WR041, WR042, WR110, WR154
19671	The tribal cooperating agencies have consistently raised concerns about reactive dust and ore fines along the Transportation and Utility Corridor, and potential for water quality impacts to the three streams and wetlands that are crossed within the corridor. Yet these concerns have been repeatedly kicked back and forth between the Air IAP and Water Quality IAP work groups, with neither group ultimately resolving the information and risk analysis gap. The end result of this 'oversight' in the SDEIS is that no consideration, discussion, or proposed management of this potential water and wetland quality impact is provided for the public to review.	COOP01, WET11, WR151
19672	It is unacceptable to dismiss the likely water quality impacts of twenty years of ore spillage and dust/fine deposition with a casual statement and zero analysis. It is especially disheartening to the tribal cooperating agencies that have attempted to elevate this issue for so many years, that the co-leads have been completely unwilling to consider giving it the analysis it requires, or to even provide examples from other sulfide mines where this has not proven to be a concern.	COOP01, WET11, WR023, WR151
19673	Regardless of the 'footprint' of the equalization basins, the liner leakage estimate of 5 gallons per acre per day (gpad) is not consistent with what we have found in the literature for the maximum allowable, or "Action Leak Rate", above which a leak must be found and repaired.	COOP01, WR126
19674	The Band has consistently raised concerns for the NorthMet Project potential to increase mercury concentrations in fish within the St. Louis River watershed, where we exercise water quality jurisdiction, and within the 1854 Ceded Territory where Band members can exercise treaty fishing rights.	AQ05, COOP01
19675	There has not been significant "ground-truthing" of mercury deposition rates that were used in the modeling assessment. Tribal cooperating agencies note that no studies have been conducted within this region of active mining to determine why fish tissue mercury concentrations are so high if the local sources mainly emit 'non-locally polluting' forms of mercury.	AQ28, COOP01
19676	The Band concurs with the letter recently signed by 19 Duluth health care professionals expressing concerns that the SDEIS fails to define the human health effects of increased mercury emissions, exposure to asbestos-like mineral fibers, and arsenic.	COOP01, HU01, HU02, HU07
19677	The SDEIS states that the current fish tissue concentrations in the five local lakes that were studied result in Hazard Quotients (HQs) that exceed 1 (page 6-63), but gives no further information. The Cumulative Impacts Analysis, Local Mercury Deposition and Bioaccumulation in Fish (July 2012) (Barr report) showed modeled contributions from both the Mesabi Nugget LDSP and PolyMet; this information should be included in the SDEIS for public review. The Barr report provides the actual HQs, rather than just saying "they exceed 1". The SDEIS should state clearly that in one case, the existing HQ equals 46.2, which is 46 times as high as the number where action is recommended. This is an unacceptable situation.	AQ03, COOP01
19678	The SDEIS does not provide any rationale for more mercury to be added to a system that is already so high in mercury, but rather only suggests that the TMDL should take care of this.	COOP01, MERC22
19679	The background site-specific analyses and data presented in the SDEIS for total mercury and methylmercury in surface and groundwater is not sufficient to adequately describe existing conditions or evaluate the potential for impact due to changes in hydrology and water quality as a result of the NorthMet Proposed Project.	COOP01, MERC02
19680	There is very little methylmercury data included in the analysis for any waterbodies, and there is no sediment mercury or methylmercury data used to evaluate and understanding existing conditions. For the data that is presented, there are numerous inconsistencies in reporting limits and method detection limits, casting doubt on data quality and its utility for critical analysis of project impacts.	COOP01, MERC04

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19681	The SDEIS also fails to evaluate other scientifically documented factors that affect mercury methylation and bioaccumulation. The SDEIS approach to evaluating mercury impacts of the Proposed Project avoids addressing complex but well-studied environmental processes by modeling, and instead relies upon an incomplete mercury mass balance to predict future conditions. It superficially references some of the large body of literature related to sulfate, pH, dissolved organic carbon, iron, and microbial activity, but in some cases erroneously interprets it.	COOP01, MERC13
19682	Given the lack of confidence in predicted seepage capture rates, Tailings Basin seepage is another source that has been greatly underestimated in the SDEIS analysis.	COOP01, PD08, WR018, WR021
19683	The SDEIS evaluation of mercury impacts is deficient, and the conclusion of no mercury impacts downstream in the St. Louis River watershed is not supported by the information presented. This issue remains a significant impact to reservation and treaty resources.	COOP01, MERC19
19684	recent research does not support seasonal-only restrictions on sulfate loading. There is no time of year when high sulfate discharges do not result in the generation of highly toxic sulfide in the sediments, and consequently, no time of year when wild rice is not susceptible to high sulfate.	COOP01, WR153, WR154
19685	The wild rice sulfate standard must apply throughout the Embarrass River watershed.	COOP01, WR154
19686	The scant remaining stands[of wild rice] in the upper reaches [of the Embarrass River] have already been severely impacted by previous mining disturbances and continued releases of high-sulfate water, and are in need of restoration.	COOP01, PER10, WR154, WR157
19687	The NorthMet Project Proposed Action must meet MN WQS, including the sulfate criterion to protect wild rice.	COOP01, PER10, WR153, WR154
19688	We consider the high probability of continued degradation of remaining wild rice stands in the Partridge and Embarrass River watersheds as a result of the NorthMet Project to be an unacceptable environmental impact.	COOP01, PER10, WR156, WR157
19689	The SDEIS does not adequately discuss impacts to traditional uses such as hunting and trapping, nor does it adequately discuss impacts to traditional game and furbearer populations. This is a major discrepancy in these documents as healthy wildlife populations, particularly game and furbearer species, and access to them is critical for the exercise of treaty rights for tribal members.	COOP01, CR01
19690	Fond du Lac's comments on the DEIS regarding the existing wildlife corridors are still applicable: they are fundamentally inadequate to maintain habitat connectivity across the heavily disturbed Mesabi Iron Range. As evidenced from aerial photographs, they're narrow and often heavily intruded upon by roads, utility corridors, mine pits and urban development. These features serve as barriers to many kinds of wildlife. While the existing corridors may function well enough for large, mobile species like deer or wolves, they are inadequate for smaller, less mobile species	COOP01, WI03, WI04
19691	The SDEIS concedes that increasing development of urban areas alongside the corridors will render some of the existing corridors less suitable for wildlife in the future. Increased urban development and associated transportation and utility infrastructure should be expected if the project provides the economic benefits stated in the SDEIS. Yet there is no mitigation proposed or even evaluated in the SDEIS for this environmental impact.	COOP01, WI03, WI04
19692	The Band specifically requests that state and federal regulatory agencies work with the tribal agencies to establish dedicated and protected wildlife corridors and enhance reclamation of existing mine lands to mitigate wildlife impacts within the 1854 Ceded Territory.	COOP01, WI03
19693	from the Band's perspective, perhaps the most significant deficiency in the SDEIS analysis of wildlife impacts is its failure to critically analyze potential impacts to moose.	COOP01, WI03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19694	The tribal cooperating agencies have consistently raised impacts to moose as an issue of critical importance throughout the DEIS, SDEIS, Section 106 consultation, and ‘sieve list’ meeting processes. It is not acceptable to defer full consideration of this culturally significant species until the FEIS. We have valid concerns about the project’s impact on moose habitat at a time when their population is crashing, and they should be addressed immediately.	COOP01, CR03
19695	the Band’s concern for project impacts to moose is not simply potential effects to hunting zones and seasons; we are gravely concerned about protecting sustainable moose populations for future generations	COOP01, WI03
19696	This discussion [in the SDEIS] contains substantially outdated information regarding sturgeon reintroduction, both in the St. Louis River estuary and upstream of the Minnesota Power dams on the Fond du Lac Reservation.	AQ02, COOP01
19697	Uncontrolled contaminant loading from existing mine facilities, along with elevated constituents from the Proposed Project, have the potential to affect the successful establishment of a sustainable lake sturgeon fishery throughout the St. Louis River. This potential impact should be fully evaluated in the SDEIS.	AQ02, COOP01
19698	The SDEIS states that the property boundaries at both the Plant Site and Mine Site are used to define the maximum extent of NorthMet air impacts that would have the potential to affect historic properties, because the project is predicted to meet ambient air quality standards at those boundaries. The Band asserts that these property boundaries cannot arbitrarily be used for acid dust and metal deposition boundaries because there are no ambient air quality standards for these pollutants.	AIR04, AIR08, COOP01, WR151
19700	it is inappropriate to use areas that show compliance with ambient air quality standards to show “no effects from dust and metal deposition”, because ambient air quality and impacts caused by deposition are two separate concepts.	AIR04, COOP01, WR151
19701	it is simply not true that “modeling does not indicate potential effects on historic properties from dust deposition”. Figure 4.2.9-4 shows areas where the Fugitive Dust Area of Potential Effect extends outside both the Plant and Mine Sites.	AIR04, COOP01, WR151
19702	The SDEIS states that modeled annual dust deposition rates were compared to an “annual effects-level deposition rate” (background) of 365 g/m2/yr. This same “annual effects-level deposition rate” was given in the PSDEIS in May of 2013, but without providing a reference for how this number was derived.	AIR04, COOP01, WR151
19703	direct physical effects of mineral dusts on vegetation can be seen at a surface load of 7 g/m2 and chemical effects of reactive materials can be seen at 2 g/m2 . These levels indicate that the proposed “impact” level of 365 g/m2/yr may be too high.	AIR04, COOP01
19704	Further, as the Band commented on the PSDEIS, the modeled deposition rates do not include the effects of contamination from other sources, such as pit leaks and seepage, nor are cumulative impacts from all of these sources included in Chapter 6.	COOP01, CU12
19705	The SDEIS statement that “all of the receptor nodes with the highest model-estimated deposition rates were located within the ambient air boundary” is incorrect, especially given that the following paragraph contradicts this statement by saying “of the 234 acres of wetlands, (that could be potentially indirectly affected) 228 acres would be located within the Mine Site ambient air boundary”. While only 3% of the affected acres are outside of the boundary, these two statements should be reconciled. This same comment was made by the Band previously while reviewing the PSDEIS. The inaccuracy serves to diminish consideration of any impacts.	AIR05, COOP01
19706	SDEIS Figure 5.2.3-22 depicts receptors outside the plant site that are predicted to receive dust deposition rates higher than 50% of background. Since the SDEIS asserts that only those areas receiving deposition greater than 100% of background will be affected, it is unclear why Figure 5.2.3-22 shows areas receiving more than 50% of this value.	COOP01, WET18

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19707	SDEIS Figure 5.2.3-23 depicts receptors outside the plant site that are predicted to receive metal deposition rates higher than 100% of background, but there is no discussion regarding monitoring or management actions to quantify or mitigate affects. Other SDEIS text is confusing or contradictory; from SDEIS 5-302: “all receptors have model-estimated dust deposition of 50% or less of the effects-level background of 365 g/m2/yr”, but the very next sentence states “At the Plant Site, there would be two locations showing model-estimated deposition rates greater than 100% of background deposition”. Later in the same paragraph “...the modeling only indicated those areas that had deposition rates greater than 100% of background deposition”. It appears as though one statement may address dust deposition and the other metals deposition, but this is unclear.	COOP01, WET18
19708	The SDEIS discussion on fugitive dust is quite often confusing. There should be clarification between when the text is referring to sulfide dust and when it is talking about metallic dust. The text apparently switches between the two without explanation. Also, the text is not clear which air emissions sources were modeled with regard to fugitive dust.	AIR12, COOP01, WR151
19709	From the SDEIS, “90% of the receptor nodes with the highest model-estimated deposition rates are located within the ambient air quality boundary”. As the Band has commented before, this is impossible to verify, as no map of the location of the receptor nodes has been included. Also, 90% of the area predicted to be impacted does not lie within the ambient air quality boundary; it appears to be only about 60% contained to the ambient air quality boundary (SDEIS Figure 5.2.3-22).	AIR05, COOP01
19710	the co-lead’s only ‘mitigation’ for fugitive sulfide dust is recommending future wetlands monitoring.	COOP01, WET18
19711	the Proposed Project suggests water spraying for areas of fugitive dust release during dry periods as mitigation. In the case of dust that may have high acidic content, this would be a poor choice for management action, as the addition of water to the dust would likely create or accelerate toxic run-off.	COOP01, WET18, WR151
19712	The Band does not agree with the statement that “no significant reactive airborne fugitive dust from the rail transport is expected”. The SDEIS minimizes the potential adverse impacts from constant rail corridor spillage during the life of the mine project by claiming “Any spillage of the ore fines is expected to be within 2 meters of the rail line, along the path”. The Band is concerned with the effect of any spillage on water run-off, as has been seen with other mines in the US	COOP01, WR151
19713	There are other invalid and/or inconsistent statements throughout the SDEIS related to air quality. The SDEIS states “The Northmet Project area has been designated by the USEPA as attainment for all air quality pollutants”. To be clear, attainment designations for the new short-term standards for NOx and SO2 have not yet been completed for the State of Minnesota. Also, 90% control efficiency is assumed for haul roads at the Mine Site, but only 80% control is assumed for unpaved roads at the Plant Site.	AIR12, COOP01
19714	The Band has continually questioned the Page 5-411 states that “The modeling results for the Mine Site receptors...indicate that the highest modeled 24-hour H2H PM-10 concentration was 27 ug/m3 for the year 8 operating scenario and 29 ug/m3 for the year 13 operating scenario”. Yet the 29 ug/m3 result not shown in Table 5.2.7-11, even though this value is nearly the PM-10 24-hour increment limit (30 ug/m3).	AIR12, COOP01
19716	From Table 6.2-22, cumulative inhalation risks for cancer are four times greater than the guideline of 1E-05. Although much of this risk comes from existing facilities, this number indicates that the area cannot sustain pollution that adds to what is already there without compromising health.	COOP01, HU05
19717	The Band has also continued to raise concerns for amphibole fibers, and what we perceive as insufficient analysis in the SDEIS. According to the SDEIS, the BACT-like fine particulate controls will control the release of more than “99.9% of amphibole fibers that are emitted from controlled sources”, not “99.9% of fibers in the ore”. The second statement is incorrect, because some sources of fibers from the ore are uncontrolled, like blasting operations, or are unable to be controlled up to 99.9%, like haul roads, tailings, crushing and screening, and stockpiles.	AIR03, COOP01

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19718	The SDEIS states that the Biwabik Iron Formation (which has been found to contain amphibole fibers) slopes under the Duluth Complex at the Mine Site, coming within 100 feet of the area that is planned to be mined. The Band’s previous comments regarding unexamined hydrological connections between geologic layers or formations are also applicable in this instance. With fractured bedrock present, that could establish a hydrological connection, and 100 feet would be an insufficient barrier.	COOP01, PD21, WR012, WR107
19719	The SDEIS maintains that the Minnesota Department of Health has reported that males within the area of the taconite mining and milling industry had more than two times the mesothelioma rate than the rest of the state. Actually, the report from the epidemiologic study of Minnesota iron mine workers states that it is three times the rate found in the rest of the state.	COOP01, HU05
19720	Page 5-443 The SDEIS assures that ambient air monitoring for amphibole fibers would be conducted following facility start-up. While no schedule of frequency or duration for amphibole fibers monitoring has been proposed in the SDEIS, the Band continues to assert, as we have throughout the environmental review process, that monitoring will need to continue over the life of the mine, as no one can predict when fibers might be contacted and released.	AIR03, COOP01
19722	The tribal cooperating agencies were not permitted to participate in the Geotechnical Stability IAP workgroup, so we are at a disadvantage for understanding how some of the profound geotechnical stability risks identified for the PolyMet project as defined in the 2009 DEIS were resolved for the 2013 SDEIS.	COOP01, GT14
19723	we do not share PolyMet’s confidence in being able to virtually eliminate leakage to groundwater from any type of containment system. Some leakage must always be assumed, and given the site-specific conditions for the proposed location of the HRF, the risk for highly contaminated seepage to exit the HRF and flow to wetlands in the Embarrass River watershed.	COOP01, WET12
19724	[A] 'natural low point in the topography' is an open water wetland (as prominently displayed in the left photograph on the cover of the SDEIS) with distinct natural drainage channels .	COOP01, WET17
19725	The SDEIS simply does not address the potential lack of integrity or risk of failure when constructing a hazardous waste facility within a wetland. Assumptions about hydraulic head being removed from the lower liner are not reassuring when the lower liner (geosynthetic clay) has been installed within a wetland and natural drainage ravine.	COOP01, PD18, WR126
19726	The potential for substantial volumes of seepage flowing from the Tailings Basin to the HRF has not been addressed in the SDEIS; this represents a potential structural hazard.	COOP01, GT11, WR066
19727	But we have no assurance that the HRF is designed to structurally withstand thousands of gallons per day of Tailings Basin seepage along the dikes that do not have seepage capture features installed.	COOP01, GT11
19728	the co-lead agencies’ approach to predicting indirect impacts to wetlands and their resulting conclusions, [is] an overly simplistic method based upon a flawed concept of hydrology at the mine site.	COOP01, WET08
19729	The purpose of an EIS is to be “forward looking” by predicting potential impacts and adequate mitigation for those impacts; this SDEIS is deficient in that respect. The USACE has not yet developed a monitoring plan to assess after-the-fact Project impacts to wetlands, but maintains that will be the way to best determine and mitigate indirect wetland impacts. The Band is not aware of any previous instance for which the USACE St. Paul District Office has required reasonably foreseeable indirect wetland impacts to be later mitigated as direct effects based upon monitoring.	COE02, COOP01, WET02
19730	Given the persistent major differences of opinion between the co-lead agencies and the tribal cooperating agencies, the Band specifically requests that financial assurance for potential indirect wetland effects and monitoring be secured.	COOP01, FIN03

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<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19731	Nearly 2,000 acres of coniferous bog wetlands will be directly impacted by mine pit(s) and stockpiles, or indirectly impacted due to drawdown and/or pollution. This is particularly significant to the Band because many tribally harvested resources are only available in coniferous bogs, and restoration of coniferous bogs is a very difficult and long process that has extremely low success rates.	COOP01, WET13
19732	The proposed mitigation plan is inadequate; it allows for the vast majority of mitigation and/or restoration credits to come from outside the Partridge, Embarrass, and St. Louis River watersheds. There is no justifiable reason to permit out-of-watershed mitigation when in-watershed opportunities still exist...	COOP01, WET03
19733	The Band objects to the approval of any further out-of-watershed mitigation credits or restoration for impacts to irreplaceable high quality aquatic resources of national importance, which include all remaining unimpacted wetlands within the St. Louis River watershed/Lake Superior Basin.	COOP01, WET03
19734	Tribal cooperating agencies believe the CEA for land use should encompass the 1854 Ceded Territory, as the signatory Bands have lost access to substantial portions of the 1854 CT and the resources within.	COOP01, CU01
19735	The tribal cooperating agencies believe the water quality and hydrologic cumulative effects analysis should incorporate the entire St. Louis River watershed. This watershed has experienced substantial historic, current and proposed expanded mining activities, as well as other industrial, agricultural and urban development. In addition to the direct surface water and wetland impacts (loss and/or degradation) from these activities, nearly half of the watershed has experienced hydrologic alteration from extensive ditching.	COOP01, CU01
19736	Tribal cooperating agencies consider a 216,300 acre area bounded by the St Louis River, Lake Superior, Lake Vermilion and the Beaver Bay to Vermilion Trail to be a Tribal Historic District, and the pertinent area for consideration of cumulative effects to cultural resources.	COOP01, CR03, CR04
19737	The tribal cooperating agencies' review of the water modeling data packages for the NorthMet Project Proposed Action led to our conclusion that GoldSim did not accurately predict existing conditions, and cannot be relied upon to accurately predict future project conditions.	COOP01, WR044, WR045, WR049
19738	While any individual mine may not have significant impacts on plants, wildlife or the landscape, the cumulative impacts of thousands of acres of habitat loss and degradation correspond to a legitimate, significant concern for treaty-protected resources and access to them.	COOP01, CU11
19739	General reluctance to share information with non-Band members is often prevalent [at NorthMet Project meetings] as well as cultural restrictions on who (inside and outside the Band) can legitimately and safely be trusted with sensitive information.	COOP01, NEPA14
19740	The Area of Potential Effect (APE) for cultural resources divided the project into two separate sections surrounding the proposed mine site and the proposed plant site should be revised. "Figure 4.2.9-1, Cultural Resource Analysis-Area of Potential Effect" needs only to have the two areas joined to compose an APE that reflects an undertaking as defined in Section 106 of the National Historic Preservation Act of 1966...]" An APE that encompasses the Mine and Plant sites and surrounding area affected by operations would better describe the undertaking for cultural resource investigations.	COOP01, CR02
19741	The Beaver Bay to Lake Vermilion Trail requires further clarification...There has been no rigorous attempt to research the BBLVT by the Bands or Lead Agencies, although the Superior National Forest Heritage Program reviewed the GLO plats and conducted field investigations on SNF land. Additional fieldwork should be conducted in the spring or fall when ephemeral features such as foot trails are less easily concealed by vegetation and more easily discerned.	COOP01, CR04
19742	The proximity of the plant site to the Sugarbush and the cumulative effects of dust on leaves, trees and understory flora have not been examined in detail and their long term effects may well be detrimental to vegetation, other than maples, that comprise the Sugarbush."	COOP01, CR02, CR03, CR05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Fond du Lac Band (42920)	
19743	The SDEIS must be revised to fully evaluate reasonable alternatives in the SDEIS, including identifying the federal agency preferred alternative and the LEDPA.	ALT20, COE04, COOP01
19744	No mitigation has been identified in the SDEIS for this permanent loss of lands and resources (natural and cultural) to the 1854 Ceded Territory. The public interest determination must include a specific finding that “The intended use of the conveyed Federal land will not substantially conflict with established management objectives on adjacent Federal lands, including Indian Trust lands” (36 C.F.R. 254.3(b)(2)(ii)). This threshold has not been met, and the Fond du Lac Band objects to the implementation of the Land Exchange Proposed Action.	COOP01, CR01, LAN05
19745	The SDEIS must be revised, with significant additional study, to appropriately evaluate closure, mitigation, reclamation, and perpetual treatment cost estimates. The SDEIS requires substantially more public transparency and less equivocation on what is arguably one of the most fundamental issues at stake for this project: perpetual treatment.	COOP01, FIN06, PER03, WR035, WR037
19746	The SDEIS does not provide sufficient information for the public to understand whether the NorthMet Project Proposed Action will be required to remediate these and other AOCs before commencing project operations, or be allowed to defer remediation until closure.	COOP01, HAZ05
19747	Based upon our extensive evaluation of the SDEIS and supporting technical documents, we conclude that there will undoubtedly be significant and unmitigated impacts to natural and cultural resources that the tribal cooperating agencies have consistently elevated to the attention of the co-lead agencies. There will be significant and unmitigated tribal resource losses within the 1854 Ceded Territory and the Lake Superior basin, including the St. Louis River watershed. The NorthMet Project Proposed Action and Land Exchange Proposed Action would decrease the amount of land available for public access and use, and would decrease portions of the 1854 Ceded Territory available for use by the Bands... There is a demonstrated need for significant improvements to the modeling evaluations. The lack of fracture and fault analysis is also major deficiency of this SDEIS.	COOP01, WR012
19748	Based upon our extensive evaluation of the SDEIS and supporting technical documents, we conclude that there will undoubtedly be significant and unmitigated impacts to natural and cultural resources that the tribal cooperating agencies have consistently elevated to the attention of the co-lead agencies. There will be significant and unmitigated tribal resource losses within the 1854 Ceded Territory and the Lake Superior basin, including the St. Louis River watershed. The NorthMet Project Proposed Action and Land Exchange Proposed Action would decrease the amount of land available for public access and use, and would decrease portions of the 1854 Ceded Territory available for use by the Bands... We consider the high probability of continued degradation of remaining wild rice stands in the Partridge and Embarrass River watersheds as a result of the NorthMet Project to be an unacceptable environmental impact.	COOP01, WR115, WR157
19749	The SDEIS evaluation of mercury impacts is deficient, and the conclusion of no mercury impacts downstream in the St. Louis River watershed is not supported by the information presented.	COOP01, MERC19
19750	We consider the high probability of continued degradation of remaining wild rice stands in the Partridge and Embarrass River watersheds as a result of the NorthMet Project to be an unacceptable environmental impact.	COOP01, PER10
19751	The most significant deficiency in the SDEIS analysis of wildlife impacts is its failure to critically analyze potential impacts to moose.	COOP01, WI01
19752	Uncontrolled contaminant loading from existing mine facilities, along with elevated constituents from the Proposed Project, have the potential to affect the successful establishment of a sustainable lake sturgeon fishery throughout the St. Louis River. This potential impact should be fully evaluated in the SDEIS.	AQ02, COOP01

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<b>Sender Name (Submission ID) Fond du Lac Band (42920)</b>		
19753	A cumulative analysis of fibers expected from the site along with fibers currently being emitted from other sources should be performed. Human health risk assessments should be expanded to include scenarios of worker exposure to amphibole fibers. Fugitive dust impacts must be evaluated for human health and environmental impacts.	AIR03, COOP01, HU04
19754	The SDEIS simply does not address the potential lack of integrity or risk of failure when constructing a hazardous waste facility within a wetland.	COOP01, GT07, GT15
19756	The Band specifically requests that financial assurance for potential indirect wetland effects and monitoring be secured.	COOP01, FIN03
19757	The Band objects to the approval of any further out-of-watershed mitigation credits or restoration for impacts to irreplaceable high quality aquatic resources of national importance, which include all remaining unimpacted wetlands within the St. Louis River watershed/Lake Superior Basin.	COOP01, WET03, WET14
19758	Tribal cooperating agencies believe the CEAA for land use should encompass the 1854 Ceded Territory, as the signatory Bands have lost access to substantial portions of the 1854 CT and the resources within.	COOP01, CU01
19759	The tribal cooperating agencies believe the water quality and hydrologic cumulative effects analysis should incorporate the entire St. Louis River watershed.	COOP01, CU01
19760	Tribal cooperating agencies consider a 216,300 acre area bounded by the St Louis River, Lake Superior, Lake Vermilion and the Beaver Bay to Vermilion Trail to be a Tribal Historic District, and the pertinent area for consideration of cumulative effects to cultural resources.	COOP01, CR03, CR04
<b>Sender Name (Submission ID) Forrest Johnson (11570)</b>		
2218	Great concerns about the amount of water needed for the operation. The tailings basin to be used IS made of freshwater-groundwater. I still haven't seen an accurate measure of just how many gallons of water – raw water demand – will be needed.	WR182
2218	Great concerns about the amount of water needed for the operation. The tailings basin to be used IS made of freshwater-groundwater. I still haven't seen an accurate measure of just how many gallons of water – raw water demand – will be needed.	WR182
2219	who will be in charge of testing the site, testing the water that has been reclaimed or contained. Who will that be 50-100-200-500 years from now? A public agency? A private contractor paid in perpetuity?	PD24, WR039, WR090
2219	who will be in charge of testing the site, testing the water that has been reclaimed or contained. Who will that be 50-100-200-500 years from now? A public agency? A private contractor paid in perpetuity?	WR105, WR056
14353	sulfate levels in the basin plus added sulfide is a great concern.	GEN01
14353	sulfate levels in the basin plus added sulfide is a great concern.	GEN01
<b>Sender Name (Submission ID) Forrest Petersen (42938)</b>		
9918	the MODFLOW water quality models used predict ...that two water constituents, aluminum (Al) and, lead (Pb) will exceed applicable environmental evaluation criteria...research has shown that elevated Al concentrations can negatively impact aquatic life...Pb can be absorbed into plants and game animals near mining operations...This has the potential to be a problem for the native Bands people who hunt and fish in the surrounding area	AQ05, AQ07

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<b>Sender Name (Submission ID)</b> Forrest Petersen (42938)		
9921	the 90 percentile probability used in the water quality models is below established scientific standard for modeling water quality standards. Most statistical models, including those for the MODFLOW modeling program, and the Regional Water Authorities use the 95 percentile probability threshold for making predictions in order to ensure accuracy. The 95% probability ensures greater confidence in the statistical results and equates to a 5% chance of the water quality standards being exceeded (Crabtree et al. 1987).	WR192
9922	1,741.1 acres of Minnesota Biological Survey Sites of High Biodiversity Significance, 698.2 acres of vulnerable native plant communities, 2 acres of secure vegetation, and 912.5 acres of USFS wetlands would be lost or directly affected by the NorthMet Project. Although there are no federally listed plant species in the area, 11 state-listed species would be impacted due to their position on and near the proposed mining location.	VEG01, VEG02, WET24
9924	The impact [of the PolyMet mine] to the surrounding environment could be even larger as mine drainage has been shown to exert chemical and physical stressors on the surrounding environment causing loss of diversity and reduced aquatic life.	AQ05
9925	In addition to loss in diversity, mine drainage, especially aluminum oxide, has been shown to significantly reduce algal biomass in nearby streams (Niyogi et a. 2002).	VEG06
9926	Records exist of historically high lynx in Minnesota; however, they experienced a decline during the 1900s due to hunting and are currently in the recovery stages. Research has determined that extensive contiguous habitat is necessary for viable lynx population to occur. The inclusion of the land exchange aspect helps alleviate some of the effects of reduced habitat for wildlife. However, with the allowance of selective logging on the newly acquired land, many of the state-listed animals that require extensive habitats, such as the Canadian lynx and gray wolf, are unlikely to persist in the fragmented areas proposed in the land exchange (Ruggiero et al. 1999).	WI01, WI02
9929	I know that economic development is necessary to create jobs and provide raw materials for societal needs, I simply suggest using the best available scientific methods for determination of the environmental consequences, and utilizing all available resources to mitigate negative impacts. Issues such low statistical thresholds on water quality models, effects of mine seepage, and the destruction of critical habitat should be addressed more thoroughly before the NorthMet Project is allowed to continue.	SO04
<b>Sender Name (Submission ID)</b> Fort JK (47327)		
12186	The Supplemental Draft Environmental Impact Statement fails to adequately address the negative impact of the proposed copper sulfide mine. [Acid Mine Drainage and heavy metal contamination] would pollute and ruin the St. Louis River and watershed from it's northernmost regions all the way to Lake Superior... as well as all the groundwater in its wake, groundwater that we citizens rely on to be safe and healthy to drink. For Duluth, or any cities/towns who get their drinking water from Lake Superior, it would be a negative impact as well.	HU03
16701	we must also mention the terrible, direct devastating effect the pollution from the mine would cause concerning wildlife and birds who use the St Louis River and Lake Superior to drink from and obtain food from. I include the Embarrass River and any other body(ies) of water that would be harmed by the mine as well, such as the lake that is over the presumed deposit.	AQ05
16746	It would pollute and ruin the wild and beautiful St. Louis River and watershed from it's northernmost regions all the way to Lake Superior, which is another body of water that would be so negatively impacted as well as all the groundwater in its wake, groundwater that we citizens rely on to be safe and healthy to drink.	WR042, WR081
16747	For Duluth, or any cities/towns who get their drinking water from Lake Superior, it would be a negative impact as well.	WR011, WR041

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Fort JK (47327)		
16748	But, we must also mention the terrible, direct devastating effect the pollution from the mine would cause concerning wildlife and birds who use the St. Louis River and Lake Superior to drink from and obtain food from. I include the Embarrass River and any other body(ies) of water that would be harmed by the mine as well, such as the lake that is over the presumed deposit.	WI04
<b>Sender Name (Submission ID)</b> Fran Brinkman (13360)		
116	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
117	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
118	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Frank Blume (38365)		
13660	This is a very environmentally friendly mine proposal. We need good paying jobs. We need the platinum group metals.	SO10
<b>Sender Name (Submission ID)</b> Frank Frederickson (18100)		
3228	I believe this [the Land Exchange] is a win-win for our region and that it enables enhanced recreational opportunities for the public, while enabling the extraction of minerals in an environmentally sound manner.	LAN11
13466	I wanted to state my appreciation for the efforts of the permitting agencies and of PolyMet to work together in a diligent environmental review process that identifies necessary protections for our shared environment, while enabling the economic extraction of materials and minerals that we all use in our daily lives; in our phones, homes and cars.	SO10
<b>Sender Name (Submission ID)</b> Frank Gardner (57979)		
19860	Minnesota cannot be expected to treat polluted water for 500 years. PolyMet cannot be trusted to clean up this mess.	NEPA15
<b>Sender Name (Submission ID)</b> Frank Hansen (17017)		
11033	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Frank Jossi (11268)		
793	The Audubon Society and others have suggested Polymet look at underground mining instead of open pit. I don't see that as an option in the EIS. Why not? It would cost Polymet more to mine copper nickel but the environmental damage would be far less.	ALT01
795	The land exchange basically a fraud. The mining rights are not clear at all in the swap -- so those lands could be mined someday too.	LAN04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Frank Jossi (11268)		
1590	We have one of the largest concentrations of fresh water in the world, both in our interior lakes and with Lake Superior. This seems far valuable to the country than copper nickel, especially in time when droughts have impacted different parts of the country for at least the last two decades due to global warming. This legacy is worth preserving and this mine, and others proposed, would like end it	SO02
1591	I find it hard to imagine the monitoring of water for 500 years. Copper nickel mining has an atrocious international record so I would certainly plan on necessity for long-term monitoring. The chance for pollution due to heavy rainfall, poor planning, breached liners and unforeseen weather events seems likely. Where is the mitigation plan for worse-case scenarios?	PD22
1593	What are the details of the proposed water treatment systems?	PD03
1594	Who will pay for five centuries of monitoring? If Polymet goes under, what is the liability to the taxpayer?	FIN01, FIN10, FIN11
1595	How much will Polymet put up annually to pay for cleanup in case of a disaster?	FIN05
1596	Are you going to correct the inaccurate water flow model?	WR003, WR086, WR091
1597	Will there be more work on the impact to wetlands? Seems under-represented.	WET24
1598	There is significant habitat loss not well documented in the report.	VEG03
1599	Finally, Polymet is a small company, frankly not all that well capitalized to take on such an enormous undertaking. It is not Kennecott. I fear any kind of even minor disaster will likely put it out of business, or it may decide to put itself out of business. Of course, the taxpayer will be left with the environmental and financial damage of such a result.	FIN01, FIN02, FIN10
<b>Sender Name (Submission ID)</b> Frank Korpi (54645)		
18000	Water is our most precious resource. I am 75 years old and feel copper nickel mining would be bad for our states water.	WR195
<b>Sender Name (Submission ID)</b> Frank Moe (788)		
45	This draft of the Polymet EIS is still "inadaquate" being based upon the assumption that the pollution from the mine can and will be processed for 500 years.	PD03
<b>Sender Name (Submission ID)</b> Frank Trapanese (50584)		
11909	The effect of PolyMet's likely pollution would devastate the now vital fishing and tourism industries of northeastern MN for generations. The prospect of a limited number of jobs for a limited period of time would be more than offset by the collapse of fishing, tourism, seasonal residencies	SO01
12486	The effect of PolyMet's likely pollution would devastate the now vital fishing and tourism industries of northeastern MN for generations. The prospect of a limited number of jobs for a limited period of time would be more than offset by the collapse of fishing, tourism, seasonal residencies etc. etc. etc.	SO01

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Frank Trapanese (50584)

13344 It is the duty and ethical responsibility of the EPA, DNR, the Corp and other governmental agencies to protect ordinary citizens and the environment. I ask that you fulfill this duty by not letting PolyMet get by with a poor quality assessment based on unrealistic data. NEPA15

13345 The effect of PolyMet's likely pollution would devastate the now vital fishing and tourism industries of northeastern MN for generations. The prospect of a limited number of jobs for a limited period of time would be more than offset by the collapse of fishing, tourism, seasonal residencies etc. etc. etc., not to mention future decades of cleanup costs that PolyMet would undoubtedly shrink from and leave to the tax payers! SO02

16085 [There would be] future decades of cleanup costs that PolyMet would undoubtedly shrink from and leave to the tax payers! FIN01

**Sender Name (Submission ID)**    Frank Verderame (4294)

1799 Please don't let a foreign entity ... leave the taxpayers holding the bag for generations. FIN04

1885 [The NorthMet Project will have] short-term monetary gain which probably will not even provide a high percentage of benefit to Minnesota SO02

1888 Far more money can be made in the long run by keeping the area wild and pristine and focusing on smaller projects with less negative effect ALT13

**Sender Name (Submission ID)**    Frank Wood (20193)

1781 We think the time has come to plan for sustainable employment rather than relying on jobs in mining which have a limited duration. We are disappointed that anyone is ready to risk the health of the entire region for a few hundred jobs. SO01

15197 Previous mining has already done damage. Consider the pollution of the St. Louis River. Look at the isolated instances of damage where sulfide bearing ores have been mined. We do not believe there is a “safe” way to manage the poisonous residue from such mining. Concentrating the poison using the filtration process proposed does not solve the problem. Consider the history of Butte MT, particularly the Berkeley Pit. What responsible person would place such a pool of poison in the midst of a network of lakes and streams? Just recently we have seen a tank leakage in West Virginia and a slurry dam failure in Georgia. In the first case, the corporation involved sought protection in bankruptcy—a move that is not unusual for firms in a tight place. Promises do not last when the profits are gone. FIN01

**Sender Name (Submission ID)**    Fred Hickox (30296)

12878 Sulfide mining can not be performed safely without causing long term pollution and environmental damage. PD01

12879 In the long term the tax payers will be paying for this mine with lost tourism jobs, health care costs, and clean-up costs. It would be more cost effective for the tax payers to pay the mining companies millions to just go away. FIN10

13988 The Federal land exchange of protected Superior National Forest land is not in the public interest. LAN01

**Sender Name (Submission ID)**    Fred Rogers (58043)

19881 What is very clear is that the jobs are relatively short term - 10-20 years - and the environmental risk and degradation are very long term - 100-500 yrs. SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Fred Rogers (58043)		
19893	50% of the US copper comes from recycling. We are recycling less than half of what is thrown away. We should be mining the waste we have created and are creating – not destroying more of the planet to create, ultimately, more waste.	NEPA06
19895	99% of the material mined will be waste, creating unrealistic and immense, perpetual liabilities.	PD01
19928	I oppose the proposed project and urge the State of Minnesota to reject it. Jobs are important, and so is the environment...We should be mining the waste we have created and are creating – not destroying more of the planet to create, ultimately, more waste. These new jobs will also disappear and when they do, what will remain?	SO01
<b>Sender Name (Submission ID)</b> Fred Schumacher (52278)		
10711	The mining period is too short, the number of jobs created too small, the experience of the company in mining non-existent, the possibility of damage too great, and the remediation period too long.	SO01
<b>Sender Name (Submission ID)</b> Fred Thompson (45317)		
12245	Then there's mine site monitoring for possibly up to 500 years for water that will potentially contain life threatening amounts of asbestos-like fibers and be too acidic to release into the environment!	AIR03, WR035, WR107, WR108, WR141
12248	And Polymet funding? Who is it kidding? Years will pass: given a few bankruptcies and America will have another taxpayer-supported Superfund site.	FIN01
12251	other concerns such as dirty coal-based energy, potential mercury pollution, wetland destruction and tax discrepancies will ultimately create a long term burden for all of Minnesota's residents:	GEN03
12253	if these mines are permitted, we will create the potential for long term harm to the health of our citizens and the destruction of some of our nation's most pristine environments.	HU01
15578	Glencore is the world's largest commodities company and one of the world's largest global mining companies. Unfortunately for Minnesota, however, it also has a long history of environmental pollution, human rights violations and anti-labor practices. Are we asking Glencore to be the responsible party? Given its history, is this a company that Minnesota can trust?	PER02
<b>Sender Name (Submission ID)</b> Freddy Bear (47562)		
7118	I am opposed to the [project] because I believe the environmental risks and future financial costs out way near term economic benefits. Instead I think the state should fund research to develop new mining technologies that are environmentally safer and less intrusive.	SO01
<b>Sender Name (Submission ID)</b> Frederic Boger (11536)		
2486	We need the work. We have to way the jobs against environmental impact. We need the work.	SO10
2486	We need the work. We have to way the jobs against environmental impact. We need the work.	SO10
<b>Sender Name (Submission ID)</b> Frederick K Campbell (54784)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Frederick K Campbell (54784)		
19386	The discussions of environmental consequences in several sections of Chapter 5 are incomplete because they do not adequately consider catastrophic weather- and/or climate-related events, such as flooding, wind- and electrical storms.	AIR01
19387	The SDEIS does not provide adequate contingency plans for catastrophic natural events or for catastrophic human-caused events (e.g., train derailments or accidents).	PD22
19388	Chapter 3 mentions the potential need for post-closure water treatment for up to 200 years at the mine site and up to 500 years at the plant site. Other chapters and sections of the SDEIS should discuss the potential implications and repercussions of such an extended period of post-closure water treatment.	NEPA05
19389	The discussion of saline groundwater on page 5-113 and 114 concludes that the risk of encountering saline water is low. However, this is based on evidence from 12 monitoring wells, which represent only a very small portion of the total project area. Based on the scope and nature of the proposed actions at the Mine Site, and based on published information about the nature of the Duluth Complex and other formations of Keweenaw age, it seems probable that saline groundwater will be encountered.	WR078
19390	Section 4.2.2 .1.3, which discusses wild rice, is incomplete, because it does not sufficiently discuss the potential impacts of the Proposed Project on wild rice, the Ojibwe community or wildlife.	VEG04, WI01
19391	The SDEIS uses modeling to predict water quality impacts, and does not use any empirical data to evaluate these potential impacts. The SDEIS should be updated with information from the latest studies by the Minnesota Pollution Control Agency and other researchers.	WR023, WR073
<b>Sender Name (Submission ID)</b> Freds Gmail (6712)		
1104	Where is the money coming from in order to support the operations that prevent any negative environmental impact for the next 200-500 years? Is there going to be a reserve set up in order to support monetarily the operations that prevent any negative environmental impact for the next 200-500 years? Who is responsible in supporting the operations, and watch-dogging the operations, that prevent any negative environmental impact for the next 200-500 years?	FIN01, FIN08
1300	...all monies need to be placed into a non-accessible reserve (non-accessible by any present or future State Governments) that will support all environmental operations for the next 200-500 years.	FIN08
<b>Sender Name (Submission ID)</b> Freshwater Future (42995)		
9144	...the Supplemental Draft Environmental Impact Statement suggests centuries of pollution may occur from this mine. The MDNR, however, has stated it did not evaluate how long polluted water may need treatment. Knowing how long pollution may occur is a fundamental part of evaluating environmental impacts. We request that you re-run the water analysis to provide such estimates.	WR036
9148	The Water Impact Analysis if Faulty and Needs to be Fixed. The proposed mine plan uses inaccurate and incomplete information in the model for water quality impacts. As such, this flawed model likely under-represents the amount of water pollution and how far and fast it spreads.	WR189
9151	The mining company has provided no plan for dealing with common accidents, spills, leaks, or mechanical failures that occur at mines of this type... The SDEIS needs to include contingency planning for the most likely mishaps.	PD22

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Freshwater Future (42995)	
9152	...we ask that you include information regarding financial assurances as part of the document...The NorthMet proposed mine plan provides no information about the expenses of water treatment, what will be included in the costs, and how taxpayers will be protected from potentially paying for environmental clean-up the mining company leaves behind.	FIN01, FIN05, FIN10, FIN13
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
4883	A mine plan that anticipates creating centuries of water pollution does not sufficiently protect Minnesota’s waters. The SDEIS must more fully examine mine design alternatives, such as the Underground Mine Alternative and the West Pit Backfilling Alternative, that could reduce pollution risks.	ALT01, ALT03, ALT06
4884	The SDEIS should clearly state that active water treatment will be needed for at least 200 years at the Mine Site and for at least 500 years at the Plant Site, or give a revised measured length of treatment time needed, instead of vague references to “it is expected to be long term.”	PD03
4885	the SDEIS should include graphs and other depictions of water quality data, similar to what is found in the water modeling data packages. These graphs are ways to help the public understand the information, and they should not exclusively reside in technical data packages that most of the public will never read.	PD03
4886	The SDEIS needs to contain a full and accurate accounting of the amount of uncaptured polluted water that is expected to seep from mine and plant site features. The water model needs to be corrected and re-run with accurate information about baseflow and bedrock fractures, and revised results for pollution seepage and travel times clearly presented.	WR003, WR168
4888	The SDEIS does not present information about what is in the polluted water that is sent for treatment at the Mine and Plant sites. ... Also missing is information about the make-up of Tailings Basin water, Hydrometallurgical Facility water and contents, the content of the waste sludge and solids, and the make-up of Reject Concentrate that is transported from the Plant Site to the Mine Site by rail car....The SDEIS should analyze and state how long active water treatment is needed and what the makeup and concentration levels are of all water on the Mine and Plant sites, including water collected for treatment, water after treatment, water that is expected to escape capture, contents of the mine pits, the Tailings Basin and Hydrometallurgical Residue Facility, waste solids and sludges, and the Reject Concentrate.	PD03, WR035, WR037, WR128, WR147
4892	The SDEIS does not consistently characterize the pollution risks from Category 1 waste rock. Table 3.2-8 on page 3-45, Waste Rock Categorization Properties, identifies Category 1 waste rock as having the “low potential to generate acid.” But in Table 3.2-2, Key Phases and Activities (Mine Site) on page 3-17, Category 1 waste rock is identified as “non-acid-generating waste rock.” Page 5-52 states that Category 1 waste rock “would not produce acidic leachate.” ...The acid generating potential of all waste rock should be accurately and consistently characterized throughout the SDEIS and should include its potential to leach metals and sulfates, given that waste rock pollution is not limited to acidic conditions.	PD15
4893	The SDEIS notes that the concentrations of certain contaminants in the pits are expected to exceed water quality standards but, without any supporting data, the SDEIS suggests that the need for water treatment may cease. ... The SDEIS should remove statements that are not supported by data or other information. If solute levels do not decline to below water quality standards, the SDEIS should not suggest that the need for water treatment may cease. Any discussions of non-mechanical water treatment effectiveness need to be based on information and evidence from case studies, and not on hopeful but unsupported projections.	WR035, WR137

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
4894	But Section 3.2.2.1.8 does not describe anything about the Treated WaterPipeline. The figures in the SDEIS do not appear to depict the treated water pipelines running into or out of the plant site. ... All treated and non-treated water conveyances should be fully described and portrayed in figures in the SDEIS. Pipeline failures and breaks are among the common mishaps at mines of this type, with associated risks of spreading contaminated water. The SDEIS needs to fully describe and depict these features for the public to better evaluate the proposed project.	PD22, PD38
4895	The SDEIS does not present water quality information in a transparent fashion. Many graphs, charts, and tables that could help explain information are either missing completely, or found in technical data packages and supporting documents to the SDEIS, but not in the SDEIS itself.... there is no graph showing what is in the water before treatment and what the concentration levels look like over time. There is no chart that compares pollution levels in pre and post-treatment water. There is no table that shows what the contents of the Hydrometallurgical Residue Facility are, a basin that is double lined for safety. ... The SDEIS should include graphs, tables, charts and other depictions of water quality data to help the public understand the information. We suggest: contents and concentrations of contaminated water over time, side-by-side comparisons of pre and post treated water, contents of mine pits, Tailings Basin, Hydrometallurgical Residue Facility, and the Reject Concentrate.	WR063
4896	The SDEIS needs to describe [the] chemical make-up of pit and nearby well dewatering water. It should describe how treatment methods will address any constituents of concern. And the SDEIS should re-evaluate the volume of dewatering water anticipated, and how it might manage a situation where the volume exceeds the need for mine processes.	PD03
4898	The SDEIS fails to describe and analyze a significant mitigation measure that is briefly discussed in the Water Modeling documents but referred to only obliquely and with no details in the SDEIS (pg. 5-102). ... The failure to describe this mitigation plan in the SDEIS is a significant omission. The SDEIS needs to fully explain this plan, analyze the potential for this to desaturate the backfill, and account for potential impacts.	WR130
4899	the baseflow numbers used in the model for basic site surface water flow hydrology at the Mine Site are lower than measured data suggest for the site....The SDEIS used modeled estimates of baseflow rather than measured values from flow gaging stations nearby. ... The SDEIS must present a substantially revised water model that has corrected the fatal flaws found in the current version. ... The SDEIS should reconsider if the GoldSim model is the appropriate model for assessing this project's impacts. ... The model should be re-calibrated with targets based on observed baseflow numbers and new water level data from newly installed mine site wells.	WR003
4901	In modeling water quality impacts, the SDEIS makes the assumption that the Duluth Complex and the bedrock at the Mine and Plant Sites are not fractured. ... If the U.S. EPA and others are correct about the presence of fractures, the SDEIS has made a critically flawed assumption about the permeability of the site, with potentially disastrous pollution transport implications. ... In addition, the SDEIS does not examine the potential for blasting activities at the minesite to create new fractures and pathways for contaminated water to move off site.... The degree of bedrock fracturing should be more thoroughly analyzed and this information incorporated into re-running the water model for more accurate results on pollution transport from all mine and plant contaminant sources.	WR010, WR016, WR087
4903	the SDEIS uses a higher evaluation criteria for these constituents [beryllium, manganese and thallium] than the U.S. EPA's maximum contaminant levels or the State's Health Risk Limit (SDEIS 5-11 to 5-12). ... The SDEIS should either provide evidence to support using elevated levels of beryllium, manganese and thallium as naturally occurring, or adjust the water model to use evaluation criteria set at Minnesota's water quality standards.	PD29

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
4905	The SDEIS uses a P90 Criterion to determine if water evaluation criteria are being met. ... But the SDEIS notes that this is not equivalent to howwater quality-based effluent limits (WQBELs) would be developed for National Pollution Discharge Elimination System (NPDES) permitting (SDEIS 5-77). ... It would make more sense and make for better understanding of the project’s impacts, if the SDEIS used the same evaluation method as will be required in permitting. ...The SDEIS should use the same water quality based effluent limits as will be used in NPDES permitting to enable the public to understand and evaluate impacts.	PER06
4907	After about 60 years from the onset of mining, sulfates reach the Partridge River at concentrations that exceed the legal standard. This occurs at year 60 if the West Pit’s re-filling is assisted by pumping water into it. If the West Pit is allowed to refill on its own, sulfates reach the Partridge River at about year 75, also in concentrations exceeding the standard. The SDEIS predicts the project would cause no significant effects.	WR115
4908	Copper concentrations reaching the Partridge River would also exceed the water quality standard “by large amounts after 60 to 80 years” (Myers 2014). The SDEIS predicts the project would have no significant effects.	WR171
4909	PolyMet has underestimated recharge rates by three to five times what is to be expected. “Higher recharge rates lead to higher conductivity...” (Myers 2014).	WR003, WR052, WR091
4910	Dewatering rates in the East and West Pits would be about twice that predicted by PolyMet due to higher recharge and conductivity. Higher dewatering rates have the potential to impact river flows and wetlands far more than have been predicted in the SDEIS. “Based on the simulation herein, the Partridge River reach above the confluence with the South Partridge River is most at risk from dewatering and that risk continues for years during reclamation and closure if the pit refills naturally” (Myers 2014).	WR086, WR087, WR088, WR171
4911	During some periods, drainage from the Category 1 Stockpile would flow north to the Partridge River, and not solely toward the West Pit as the SDEIS predicts. This is significant, in that the SDEIS counts on contaminants flowing from the Category 1 Stockpile to the West Pit and through waste water treatment as a way of containing pollution.	WR089
4912	During reclamation, the East Pit water would be pumped, treated to bring sulfate levels down to 250 mg/L, and then redistributed to the East Pit, all while supposedly keeping the backfill waste rock in the East Pit saturated. Dr. Myers questions the ability to successfully do this. ... The effort would likely cause large areas of the backfill to become desaturated. Pumping may even facilitate the movement of oxygen and moisture through the backfill, conditions involved in the development of acid mine drainage. “PolyMet assumes it can work without presenting a design or model” (Myers 2014).	WR088
4915	PolyMet should provide a list of mines for which GoldSim has been used to simulate contaminant transport. ... The PolyMet GoldSim model contains “inaccuracies with the parameters, the assumptions, the conceptual model, and even the equations used in the model to solve the transport. It indicates the overall results are inaccurate and probably give a false sense of security” (Myers 2014).	WR189
4916	The assumption of a lack of bedrock fractures is incorrect, demonstrated even by PolyMet’s own data. Dr. Myers points out that the low conductivity values arrived at by PolyMet are the result of extremely low values for three wells pulling the mean in a direction that suggests a low conductivity, while 9 of the wells showed higher conductivity values. “...it would be better to consider that 70% of the site had bedrock K greater than 0.1 ft/d” (Myers 2014). ... A 30-day pump test conducted to assess the connection between the bedrock and surficial aquifers was done on well P-2, the well with the second lowest conductivity value. Had this test been done on any one of the 9 wells showing higher conductivity, results may have been different. “This is far too little data with which to assume little connection between the bedrock and surficial aquifers” (Myers 2014).	WR009

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
4923	“PolyMet relies on perfect engineering to limit the seepage rates through three waste stockpiles, an ore surge pile, and the tailings impoundment” (Myers 2014). ... “If their many modeling assumptions do not fully manifest or their engineering designs do not work as well as expected...this load will reach the river and cause the project to exceed many standards” (Myers 2014).	WR128
4924	In its analyses, PolyMet frequently uses mean values for model inputs, resulting in an underestimation of the potential environmental impacts. ... In addition, PolyMet’s modeling places limits or “concentration caps” on the concentrations leached from mined wastes. This approach results in the high end of potential contaminant concentrations being excluded from consideration in the model (Maest 2014). And the model assumes that “essentially all contaminants will be adsorbed or otherwise removed as mine-affected waters travel along prescribed flowpaths to receptors” (Maest 2014). ... Given the lack of site-specific information on these factors that affect contaminant adsorption along potential groundwater flowpaths, a modeling run with no adsorption should be conducted and included in the modeling results presented in the FSEIS” (Maest 2014).	WR058, WR060, WR173
4928	The evaluation of mercury impacts in the SDEIS is critically inadequate... No claims should be made about mercury reductions, increases, stabilizing levels, travel times, impacts to wildlife without data and information to support those claims. The SDEIS should include analysis of potential mercury sources that have not been addressed, including all constructed wetlands, the West Pit, and the Overburden Storage and Laydown Area. Mercury air emissions must be evaluated from the generation of electricity for the proposed project and from mining vehicles and equipment.	AIR05, MERC04, MERC17, MERC21
4930	Mercury was excluded from evaluation in the GoldSim water quality modeling.... The failure to model a contaminant of major concern for this proposed project is a significant shortcoming of the SDEIS. Even more troubling is that even without this evaluation and without evidence, the SDEIS claims mercury contamination will not be an issue for the proposed mine. ... With limited understanding of the mechanisms affecting mercury methylation and bioaccumulation, the SDEIS cannot and should not make claims about the project reducing mercury loadings in the St. Louis River. ... The St. Louis River is acknowledged to have a complex and unique mercury dynamic that is the subject of ongoing research. This should be recognized in the SDEIS and assertions about the NorthMet project’s mercury impacts should be supported with relevant data. The agencies overseeing the NorthMet proposed mine need to insist on the collection of more data before drawing conclusions about mercury’s impact on the watershed.	MERC04, MERC13
4933	The SDEIS assumes that mercury will be “sequestered in the LTVSMC tailings,” with the Tailings Basin acting like a sink for mercury (SDEIS 5-205). GLIFWC scientists highlight a number of flaws with this assumption... The SDEIS must include data to support the claim that the Tailings Basin would function as a mercury sink. The evaluation should answer questions that include: Are there conditions under which the tailings would shift from a sink to a source of mercury? Is the mercury permanently and irreversibly adsorbed to the tailings? Are there data to support the claim that 95 percent of the mercury is expected to be adsorbed to the tailings and hydrometallurgical residue?	MERC06
4934	The SDEIS... suggests that the impacts from increasing mercury loadings in the Embarrass River can be overlooked because loadings in the Partridge River are expected to decrease. ... If any of these conditions are not met [i.e., a nearly perfect polluted water capture system, and the uninterrupted treatment of contaminated water for centuries], the amount of mercury contamination could be significantly higher. The potential for this should be examined. ... Mercury loadings to the Embarrass River from the proposed NorthMet project should be fully disclosed, the impacts fully evaluated, and mitigation measures proposed.	MERC16, MERC18
4939	The SDEIS fails to assess or properly evaluate potential mercury issues to wildlife. The Wildlife Section and the Aquatic Species Section of the SDEIS do not review mercury contamination impacts to species that could consume mercury contaminated food sources. ... Stating that risks may exist to wildlife does not fulfill the obligation of the SDEIS to fully evaluate the threats and propose mitigations. ... The SDEIS needs to include evaluation of impacts to wildlife and aquatic life from mercury contamination. All mine features should be fully assessed for their potential to contaminate wildlife. Mitigation responses should be provided.	WI01, WI04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
4940	Mercury impacts to the Partridge River are inconsistently characterized in the SDEIS, creating confusion about what the likely impacts may be. ... The mercury impacts to the Partridge River and the wildlife that use it should be consistently and accurately reflected in the SDEIS.	MERC04, MERC23
4942	Mine and Plant Site Water Data Packages show sulfate concentrations in mine and plant water far above water quality standards hundreds of years after the mine closes. High sulfate concentrations can stimulate the methylation of mercury in the environment. Given that the SDEIS acknowledges significant amounts of polluted seepage will escape capture and treatment, the SDEIS cannot assume that mercury deposition ceases at closure. ... Descriptions of mercury contamination risks beyond the life of the mine should be fully and accurately described, and supporting data provided.	MERC17
4945	Unclear in the SDEIS is what would trigger the decision to add underdrains and the feasibility of adding them if the need arises. What if circumstances occur that cause the groundwater to be more elevated than when the stockpile liner system was being built? The SDEIS is not clear how this would be managed to ensure ground and surface waters are not impacted. ... Triggers for potential changes to designs to collect and manage polluted drainage at the mine site should be outlined in the SDEIS. Why or how underdrains would be added to certain stockpiles should be fully described.	PD03, WR130
4947	The plan in the SDEIS calls for creating a cutoff wall around the Category 1 Waste Rock Pile.... The SDEIS does not describe how or why this determination would be made. What are the differences in capture efficacy? This information should be provided. ... The SDEIS states that performance modeling was done that showed a greater than 90 percent efficacy in the capture rate with this system (SDEIS 3-46). The SDEIS does not indicate if this was ever field-tested. No supporting data is given for the efficacy of such a system at another mine or similar structure. Nor does the SDEIS describe a contingency plan for if the containment system does not capture 90 percent of polluted drainage. This information is necessary to properly evaluate the potential effectiveness of a major pollution-control engineered design for the mine. ... The Category 1 Stockpile Containment System should be field tested at an appropriate scale to assess the efficacy of this vital pollution control system. Results should be fully described in the SDEIS. Examples of the use of this method at mines or other operations at a similar scale should be found and their success rates described. Contingency plans should be developed for scenarios of water capture that are less than 90 percent, and these plans outlined in the SDEIS.	PD15, PD22
4948	The failure of the SDEIS to account for these fractures means the bedrock is more permeable than PolyMet's model has accounted for, and that the Category 1 collection system will likely not experience a 90 percent efficacy for water capture. This would result in a much greater transport of pollution than the SDEIS has anticipated. ... The SDEIS should include a re-worked water model that assumes the presence of bedrock fractures and fully analyzes what this means for the transport of polluted water off-site.	WR010
4950	The SDEIS has little information about the process to separate the different waste rock types into their appropriate stockpiles. Any mistakes made with this process have potential for pollution risks. ... However, the SDEIS does not describe this waste rock management plan that is critical to reducing water pollution risks. ... The Rock and Overburden Management Plan should be described in the SDEIS. So too should the SDEIS describe the waste rock separation process.	PD15, PD35
4952	the waste rock piles may also represent a fugitive dust source of contamination to surrounding waters and lands. ... Waste rock fugitive dust should be analyzed to ensure it is not a hazard or threat to human health or the environment. The SDEIS should contain a plan for managing waste rock fugitive dust if it is determined that this is a pollution risk.	PD15, PD35

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4953	too few samples were analyzed in characterizing the waste rock for the volume of waste that is predicted to be generated. ... Proper characterization of waste rock is essential for identifying reactivity potential and for managing the rock to limit its pollution risks. ... The SDEIS characterization of Category 1 Waste Rock as not acid generating could be wrong. ... The SDEIS should reanalyze the characterization of waste rock and provide supporting evidence for its findings.	PD15
4954	The SDEIS states that while groundwater has been impacted by the existing tailings basin, the data suggest that the concentrations of the pollutants are not increasing or decreasing (SDEIS 4-111). ... It is unknown if concentrations have increased or decreased over the past nine years. A full and current understanding of existing pollution issues at the Tailings Basin is essential given that PolyMet plans to add additional waste to the basin with additional seepage of contaminants expected. ... New data measuring existing contamination at the LTV Tailings Basin should be collected and the results fully described in the SDEIS.	PD10, WR071
4957	the NorthMet plan calls for developing a pollution containment system that would involve the construction of a cutoff wall down to bedrock to divert and collect drainage from the Tailings Basin. ... The SDEIS does not indicate if this was ever field-tested. ... The Tailings Basin Containment System should be field-tested at an appropriate scale to assess the efficacy of this vital pollution control system. Results should be fully described in the SDEIS. Examples of the use of this method at tailings basins at other operations should be found and their success rates described. Contingency plans should be developed for scenarios of water capture that are less than 90 percent, and these plans should be outlined in the SDEIS.	PD13, WR018, WR023
4962	These are modeled assumptions [100 percent effectiveness surface seepage capture and 90 percent for groundwater seepage] that seem to lack field-testing and that do not take into account bedrock fractures or containment system failures or inadequacies. This is an example of the SDEIS making assertions about low probability of water quality impacts without providing supporting data. The SDEIS should provide supporting data from similar engineering designs at other mines that have proven efficiency rates of 90 to 100 percent. ... The SDEIS should include a re-worked water model that assumes the presence of bedrock fractures and fully analyzes what this means for the transport of polluted water off-site.	WR008, WR019
4963	The SDEIS also makes unsupported assertions about the engineered design of the Tailings Basin. ... The SDEIS should provide supporting evidence that a pond at the Tailings Basin will reduce the oxygen flux and associated solute release in the underlying tailings. It should describe the depth of the pond and how wind action will not introduce oxygen to the system.	PD08
4964	The SDEIS describes a plan at closure to try to limit downward seepage from the Tailings Basin. ... Yet the SDEIS does not describe if this technique has been applied elsewhere and with what success. This is an important plan to limit water pollution, but the SDEIS does not show it can work or has worked elsewhere. ... Supporting evidence needs to be provided in the SDEIS about the functioning of the bentonite layer that will be added to the Tailings Basin at closure. Examples of this application and its success rate at other tailings basins should be provided.	PD07
4965	The design for the Tailings Basin calls for the construction of a channel should storm events or other issues risk water escaping the basin. ... Yet details about this channel are not provided in the SDEIS. The public does not know the capacity of the overflow channel or if it is intended to be lined. If it is an unlined channel, what measures will be in place to prevent contaminated seepage from escaping the channel? Has such a method been used at other mines and with what success rates? ... The SDEIS needs to contain more information about the emergency channel for the Tailings Basin, how it would function, and how seepage of contaminated waters would be prevented from this feature.	PD07
4966	The SDEIS calls for Hydrometallurgical Residue Facility to be double-lined to protect water quality. ... The SDEIS should clearly state that “long-term” likely means centuries of management, given the results of the modeling as revealed in the Plant Site Water Data Packages. ... The SDEIS needs to clearly state how long water collection systems and monitoring will be required based on modeling results.	PD29

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4967	The need to double line the Hydrometallurgical Residue Facility is because the contents of this basin are expected to contain high concentrations of contaminants. The SDEIS starts to describe a contingency plan for unexpected issues with the facility, but then fails to address the issues in a meaningful way.... The SDEIS needs to develop and fully describe contingency plans for all components of the Tailings Basin and Hydrometallurgical Residue Facility. Scenarios should be developed looking at impacts of capture rates less than 90 percent. Capture rate expectations need to be supported with data and examples from other mine operations.	PD08, PD09, PD11, PD17
4970	ore spillage and the release of ore fines [from being transported via open rail cars over a route that crosses wetlands and three creeks] pose significant water quality threats to water systems along this route. Fallen ore and fugitive dust have the potential to contaminate wetlands and soils along the rail line, leading to acid drainage and metal leaching in nearby water bodies. ... But these designs are not adequate to ensure spillage does not occur. ... The SDEIS provides no supporting data to show the centerline loading method will adequately contain spillage.... While the SDEIS calls for monitoring of spillage along the rail line, this too is an inadequate response given that contamination will have already occurred. ... The risk of widespread and localized contamination from ore spillage and fugitive dust during uncontained rail transport is unacceptable and avoidable. The SDEIS needs to include a transport plan that calls for enclosed rail cars. The Rail Transfer Hopper and rail car loading conveyor and platform should be in an enclosed structure.	PD36
4972	there is also the potential for spills from transporting Reject Concentrate by rail tank cars and from transporting waste sludge and solids by truck along the corridor's roadway. ... The SDEIS does not discuss the possibility of accidents, derailments, or spills that could result in the contents of these transports being released into the surrounding environment. Nor does the SDEIS describe safeguards to deal with this possibility or any plan for how to manage potential spills. ... The SDEIS does not describe how the rail line will be safely shared between the cars transporting ore and the tank cars transporting Reject Concentrate. ... The SDEIS needs to describe how the transportation corridor will be shared between the cars transporting ore and the tank cars transporting Reject Concentrate. The SDEIS needs to disclose the contents of the Reject Concentrate and the sludge and solid wastes, and give the concentration levels of the contents. It should provide a contingency plan for managing spills and accidents from the transportation of Reject Concentrate and sludge and solid wastes. The SDEIS should include modeled impacts of the distribution of fugitive dust.	PD36
4979	Increases in constituent loadings to the area's water systems should be evaluated for their impacts when combined with existing and foreseeable future contributions from other sources. The Twin Metals project should be included in this evaluation. Water quality models need to be re-run with corrections made to faulty assumptions (see Friends' comments about Major Flaws with the Water Model, Section I.E.) and the cumulative effects re-evaluated using the new results. Cumulative effects analysis for water resources should include the St. Louis River and should include areas north and east of the NorthMet proposed project. The relationship between the development of the NorthMet project and the development of other mining projects should be analyzed and discussed in the SDEIS.	CU01, CU02
4983	The SDEIS needs to thoroughly review the RO technology and how it intends to address the project's issue of contaminated water. The SDEIS does not provide the information or level of confidence that the public needs about this critically important technology that is central to managing pollution. The SDEIS needs to give detailed examination that shows how this has been applied successfully elsewhere and how it will avoid the problems encountered elsewhere. Without such detailed examination, the entire ability of the project to manage polluted water is called into question. The SDEIS needs to describe if and how the treatment process and RO can manage water issues in addition to sulfate, such as hardness, TDS, and specific conductance. All the issues identified in the Barr memo [May 31, 2011] must be explained.	PD03
4997	The SDEIS needs to address all of the engineering design problems of the Category 1 Stockpile system identified in the experts' reports [attachments to the Friends' submission].	PD15
5001	The SDEIS needs to address all of the engineering design problems of the Tailings Basin collection system identified in Dr. Malusis' report.	PD07

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
5002	The SDEIS should take into account the many geotechnical stability concerns identified in the Chambers and Levit report and implement the recommendations to ensure engineered designs that provide stability and protection. ... Dynamic modeling should be performed for both the Tailings Basin and the Hydrometallurgical Residue Facility.	GT02, GT11
5003	The SDEIS needs to address all of the engineering design problems of the Hydrometallurgical Residue Facility collection system identified in Dr. Malusis' report. The SDEIS should describe a rigorous construction quality assurance process that includes continuous observation during installation. The SDEIS should include an electrical leak detection system for the liners.	PD17, PD19
5004	The SDEIS needs to address all of the engineering design problems of the Category 2/3 and 4 Stockpile liners identified in Dr. Malusis' report and the Chambers and Levit report. The SDEIS should include a rigorous construction quality assurance process that incorporates the elements in both the Malusis and Chambers/Levit reports. The maximum allowable hydraulic conductivity for the Category 2/3 stockpile liner should match that for Category 4.	PD15
5005	The SDEIS should include a full Reclamation Plan that provides details about goals, methods, financial surety, reclamation techniques that have been demonstrated, and timing of activities. ... The reclamation plan must include a plan to address the oversteepening of the Cell 2W embankments and the associated seepage. Chambers and Levit make other reclamation activity recommendations that should be included in the SDEIS including characterization of waste disposed of in the East Pit, evaluation of abandoned pipelines, and a tracking system for hazardous materials to ensure appropriate disposal and compliance with laws. In addition, the Reclamation Plan should describe the water balance desired for the pits post-closure. The SDEIS should contain details about wetlands construction.	PD35
5007	the acid generating potential for the project has been under-reported.... The SDEIS must re-examine the potential for all waste rock to generate acid and other leachate. It should incorporate the recommendation by Dr. Maest to backfill all the waste rock, including Category 1 wastes. The SDEIS should accurately portray data that indicate the acid generating potential of waste rock.	PD15, WR001, WR088
5010	The SDEIS must contain descriptions of the most likely unplanned events, such as pipeline breaks, spills, failure of treatment or collection systems, mechanical problems, liner and cover failures. The SDEIS also needs to outline responses to these types of events. ... The public needs to see this response plan in order to assess the range of environmental impacts that may occur. ... The SDEIS needs to include supporting evidence for the success of responses at managing unplanned events, including examples from other mines. ... probabilistic modeling should be expanded to include assumptions that liners and containment systems work poorly. "Instead of 99% capture, they should test what occurs with as little as 10% captured. Also they should consider what occurs if the capture fails for a given period of time" (Myers 2014). He suggest modeling explore what happens if the cutoff wall and pump systems do not perform as designed.	PD22
5011	Minnesota should not approve a mine plan that cannot comply with Minnesota's existing laws [Minnesota Rules 6132.3200, Minnesota Rules 6132.4800, Minnesota Rules 6132.1300, Minnesota Rules 6132.1200, Minnesota Rules 6132.1100]. The SDEIS describes a mine that, as presently conceived, could not comply with Minnesota's Rules for nonferrous mining. The SDEIS should include a revised mine plan that can meet these laws.	PD02
5034	The PolyMet project anticipates centuries of water treatment and the SDEIS should include the necessary financial assurance calculations for the public to assess risks and impacts. The financial assurance disclosures should include closure costs, estimated bond amounts needed for each closure and reclamation activity, and how the bonds should be modified should additional temporary, long-term, or perpetual treatment and/or remediation needs be determined during operations. Disclosed information should include capital replacement costs and frequencies and assumptions on interest rates.	FIN05, FIN08, FIN13

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- 5035 Financial assurance calculations need to include the costs of unexpected events, accidents, developing pollution problems, and the staffing needed to maintain equipment and manage the site. ... Calculations of financial assurance need to include funding for contingencies such as an increased rate of release of metal contamination. ... Financial assurance costs should include the number of employees necessary to maintain the plant and mine sites for the centuries of management activities that are anticipated. The SDEIS must include detailed information about financial assurance with transparency about what the estimates include. The SDEIS should indicate that the calculations and estimates have all been reviewed and verified by the Co-lead Agencies. Calculations initially should be based on predicted worst-case scenarios until operational data can prove conditions to the contrary. Because the interest and return on investment rates can result in financial assurance variations that are hundreds of millions of dollars different, the SDEIS must make the assumptions and calculations available for comment. Financial assurance calculations should include mitigating indirect wetland impacts and should be fully described in the SDEIS.
- 5036 the SDEIS provides no meaningful consideration as required by law of alternative means to achieve the project Purpose and Need. ... Serious evaluation is only give to an alternative that would convey fewer acres in the land exchange, and the No Action Alternative. ... The SDEIS fails to show adequate evaluation of two other proposed alternatives that are feasible and offer the potential for reducing environmental impacts. Limiting the scope of alternative evaluation to the No Action Alternative and a minor change in the land exchange does not meet the legal requirement for alternative evaluation.
- 5041 The SDEIS acknowledges these potentially significant environmental benefits from an underground mine: ...An underground mine would alsoeliminate the need for a land exchange with the U.S. Forest Service and allow the landscape to continue to be available for public use. ... the SDEIS dismisses the underground alternative without any further examination.... The economic feasibility was evaluated using a model called InfoMine. Neither theSDEIS nor the Underground Mining Alternative Assessment provide details of this model or its assumptions. Nor is it clear that the Co-lead Agencies reviewed the model and its assumptions. It appears the co-lead agencies have accepted PolyMet’s assertion without verification that an underground mine is not economically feasible. ... GLIFWC notes that the co-leads have not included in their analysis that an underground mine would not require a \$4 million land exchange with the Forest Service, and that the alternative would also provide economic benefits from wetlands that would no longer need to be destroyed with the creation of an open pit mine. Additionally, an underground mine could provide economic benefits by potentially not requiring perpetual water treatment and maintenance (SDEIS, Appendix C, GLIFWC Comments, Underground Mine and West Pit Backfill Alternatives). ... This alternative deserves full analysis in the EIS. An underground mine is technically feasible and offers the potential for economic benefits and significant environmental benefits. This alternative deserves full analysis in the EIS. ... Details about the economic modeling and the model’s assumptions for the Underground Mine Alternative should be given to the Co-lead Agencies, thoroughly reviewed by the agencies, and described in the SDEIS for the public. The evaluation must include reviewing the economic benefits that would transpire from not doing the land exchange, from not destroying the wetlands, and any changes in the need for long-term water treatment. A metals cost sensitivity analysis should be included in the evaluation of the Underground Alternative to verify that the option is not economical with higher metals prices.
- 5053 Backfilling the West Pit with the Category 1 waste rock has been proposed as a method to help limit water pollution risks. ... The SDEIS must fully evaluate the benefits of backfilling the West Pit. The evaluation should not include arguments or assertions that have no evidence or information to support them. Claims about needing longer water treatment with this alternative must be supported with evidence or be dropped. If this assertion is retained, it must be applied in an evaluation of backfilling the East/Central Pits as well. The SDEIS needs to include a complete evaluation of the water quality impacts from the Backfill Alternative in the GoldSim modeling. It should include detailed cost/saving estimates for longterm water treatment and maintenance under a backfilled condition.

FIN05, FIN08, FIN11

ALT14, ALT23

ALT01, ALT02

ALT03

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5060	As the SDEIS acknowledges, “The majority of wetlands that would be affected by the NorthMet Project Proposed Action would be ‘difficult to replace’ (coniferous bog, open bog, coniferous swamp, and hardwood swamp)” (SDEIS 5-313). But the SDEIS does not fully disclose how unique these wetlands are. ... The industrialization of this area would be an irrevocable loss to the State of Minnesota. Habitat fragmentation, loss of biological diversity, loss of representative habitats types, and climate change are threats to Minnesota’s natural resources that only make sites like the 100 Mile Swamp more valuable. ...The SDEIS should acknowledge the high quality habitat that this proposed mine would destroy and that these wetlands are irreplaceable. Their value and loss should be placed in a statewide and regional context within the EIS.	WET05
5063	The SDEIS does not provide an adequate mitigation and replacement plan for the significant wetlands losses that are expected. ... The SDEIS should acknowledge that its replacement plan cannot compensate for the loss of centuries-old peatlands and their unique functions. ... Mitigation of indirect wetland impacts is not even described in the SDEIS. In addition, it is unclear where the compensatory wetlands might even be found [for both direct and indirect]. ... The SDEIS fails to describe what this adaptive management plan might include. The absence of information leads to worries that many impacted wetlands may never be compensated. ... the U.S. Army Corps of Engineers (USACE) has not yet made a determination about the wetlands compensation ratios required for the project. This is also information important to have in the EIS to evaluate the environmental impacts of this proposed project. ... The SDEIS should include a mitigation plan for both direct and indirect wetlands. It should include analysis of possible compensatory wetlands for direct and indirect wetlands. A framework should be described for how any additional effects to wetlands may be mitigated. Wetlands compensation ratios need to be included in the SDEIS. The SDEIS should also analyze the wetland identified in Dr. Glaser’s report as a possible mitigation site and explain any reasons to exclude it as an option.	WET01, WET02, WET04, WET05, WET06
5067	The SDEIS uses no hydrologic data to support that the wetlands are “perched” and disconnected from interaction with groundwater. This is important because if a connection exists, the potential for mine dewatering to create greater wetland impacts exists. No data were collected at the site to show that all the ombrotrophic wetlands on site are perched and would remain perched under mine induced drawdown conditions.... The SDEIS should use hydrologic data to characterize the wetlands and identify groundwater connections with the wetlands. The SDEIS should address all the issues identified in Dr. Glaser’s report and use the scientifically supported methods he describes for wetland characterization. Hydraulic testing needs to be conducted at the Tailings Basin and this information shared in the SDEIS.	WET10
5068	In the analysis of impacts, the SDEIS relies on an “analog” method.... Analog information can be useful, but it should not be the sole source of assessing impacts. ... The SDEIS should use hydrologic data to characterize the wetlands and identify groundwater connections with the wetlands. The SDEIS should address all of the issues identified in Dr. Glaser’s report, and use water level measurement tests to assess the connectivity with groundwater. Analog data from other mines should be used as supporting information but not the sole source of information.	WET08
5070	The SDEIS does not give a detailed analysis of potential indirect wetland impacts. ... The SDEIS should contain a much fuller evaluation of drawdowns and their impacts. ... The SDEIS needs to contain a more complete evaluation of indirect wetland impacts, drawdowns, and impacts to river baseflows and riparian wetlands. The recommendations made in Dr. Glaser’s report for monitoring wetland impacts from the mine operations should be incorporated in the SDEIS.	WET07, WET10
5071	The SDEIS should more thoroughly examine the potential impacts from fugitive dust on wetlands. The SDEIS should include an evaluation of the transport of solutes during the spring snowmelt flush.	WET11
5072	the mine would severely impact a area known as the 100 Mile Swamp which has been identified as an area of high biological significance. ... The SDEIS should examine and describe how it justifies the destruction of an area of high biological significance and the loss of rare plant species associated with this project. The State of Minnesota should provide an explanation to the public of why areas of biological significance are identified and species are placed on our threatened and rare species lists, if they are not to be protected even when on public lands.	VEG01, VEG02

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5075	The SDEIS should include the USFWS findings of the Biological Assessment and the Biological Opinion for lynx impacts. The EIS is incomplete without it.	WI11
5077	The SDEIS states that while the project would decrease critical lynx habitat, restoration of the mine area after operations might provide habitat once more. But the mine area is expected to remain fenced-off and highly polluted for centuries. It is unlikely that the area would be suitable for lynx for a very long time. The SDEIS needs to provide a restoration plan to support any claims that the area could be made suitable for lynx again. I[n] addition, the SDEIS does not consider alternatives like the West Pit Backfill and Underground Mine Alternative that may help limit impacts to lynx habitat. ... The SDEIS should include a full evaluation of alternatives, such as underground mining, that would disturb less of the area and impact lynx and other wildlife habitat less. The SDEIS should include a restoration plan for lynx habitat once operations cease, with realistic evaluations about the restoration capacity for parts fenced-off and contaminated.	WI02, WI10
5081	Mining activities would destroy about 1,454 acres of suitable lynx habitat, and the proposed land exchange would result in further loss of lynx habitat within identified LAUs. While the federal lands within LAU 12 comprise 6,500 acres, the non-federal parcels combined only equal 2,149 acres within LAUs. This represents a total loss of 4,752 acres within LAUs. Tract 1 proposed for the exchange is not located within an LAU at all (SDEIS 5-629 and 5-630). ... The SDEIS should insist that a land exchange include acquiring enough acres within lynx LAUs to equal the losses of acres in LAU 12.	WI02
5083	These statements are in contradiction with findings in the Draft Biological Assessment (BA) by the USFWS. ... The SDEIS should acknowledge the use of roads by lynx, use this information to fully evaluate the risk of vehicular collisions, and provide estimates of the amount of collision deaths anticipated. The SDEIS should also consider and describe mitigation measures such as underpasses and fencing to reduce the collision risk to lynx.	WI01, WI10, WI11
5086	The SDEIS needs to correctly describe the Canada lynx as a Minnesota Species of Special Concern. The SDEIS should present all relevant lynx surveys and show that the best available information has been used in assessments of impacts rather than relying on incomplete or outdated information. Included in the SDEIS should be a table and map revealing the locations of lynx tracks, sightings, scat, or kills between 2000 and 2014.	WI01
5089	The SDEIS makes almost no mention of the project's impact on moose populations and moose habitat, despite the state's alarming moose population decline. ... The SDEIS provides no data or survey information to support the claim that the loss of habitat would not impact the species population numbers. The SDEIS does not appear to include any analysis of the project's impacts on this species. The SDEIS fails to even note that the moose on August 19, 2013, was designated a State Species of Special Concern. The alarming declines in this species population, even before its recent designation, should have been reason for the SDEIS to include a full evaluation of the project's potential impacts on this species. ... The SDEIS should include a full evaluation of the project's impacts to moose populations and moose habitat. Statements about the likelihood of impacts must be supported by data. The SDEIS should eliminate references to moose as regionally "common" as the status has changed to a Species of Special Concern.	WI01, WI02
5090	The loss of Corridor 17 and restricted use of Corridor 16 due to the NorthMet project should... be acknowledged as a significant loss in the SDEIS. In addition to the loss of these Wildlife Corridors, the SDEIS should, but does not, evaluate the project in light of impacts that may have occurred to the other 13 corridors. ... A Biological Assessment and consultation with the USFWS must be conducted to assess impacts to wildlife travel corridors. The SDEIS must analyze the loss of Corridors 16 and 17 with the loss of other regional corridors as part of its assessment.	WI03, WI11

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5096	Contaminated mine pits and the Tailings Basin present a risk to wildlife, especially waterfowl, that may attempt to use the area. Other risks to wildlife come from exposure to mine contaminated waters off-site. ... But the SDEIS does not describe a plan to discourage wildlife use of contaminated areas. The SDEIS also fails to adequately address the mercury contamination of nearby waters, ...But the SDEIS concludes that the proposed project will not adversely impact wildlife. ... The SDEIS should include a plan to discourage the use of mine pits and the Tailings Basin by wildlife. The SDEIS should more adequately assess and mitigate potential mercury pollution issues..	WI04
5097	Particularly at risk is the plant species Floating marsh marigold... The NorthMet project would directly impact, destroy, about 8 percent of its Minnesota population (SDEIS 5-350 and 5-346). This constitutes a risk to the entire population of this plant in Minnesota. Neat spike-rush ( <i>Eleocharis nitida</i> ) is another rare plant species threatened by the project. ...The project puts entire populations of some of these rare plants at risk. ... The SDEIS must examine the potential risk to entire populations of state-listed rare plant species, and assess if this complies with Minnesota's endangered species law. ... The SDEIS should examine how this loss would be mitigated.	VEG01
5099	The SDEIS fails to acknowledge the risk to wild rice from sulfate drainage.... ... The NorthMet project's sulfate drainage will be adding additional loads to a watershed already impacting wild rice. This must be acknowledged and more thoroughly analyzed in the SDEIS.	VEG04, WR156, WR157
5100	The use of non-native invasive species to reclaim the mine site is unnecessary and irresponsible with respect to the wide-scale problem of non-native species in Minnesota, and the efforts to contain their spread by federal and state agencies. ... The SDEIS should include a requirement that non-native plants will not be used in reclamation activities or for temporarily stabilizing disturbed areas. Only the use of native, non-invasive species should be permitted.	VEG05
5102	The recommendations of both the Climate Change Advisory Group and the Terrestrial Carbon Sequestration Initiative should be heeded, and no significant losses to the state's peatlands should be permitted. The SDEIS should clearly identify this project as significant contributor to Minnesota's statewide carbon emissions. The SDEIS needs to include a thorough narrative discussion of the amount of carbon expected to be released from the loss of peatlands and the statewide consequences. The SDEIS should also acknowledge that wetland mitigation will not replace the carbon sequestering abilities lost with the destruction of the 100 Mile Swamp peatlands.	WET13
5103	It is irresponsible for the SDEIS to fail to incorporate an analysis and discussion of the climate change impacts from greenhouse gas emissions that include the contribution from power generation. ... In addition, the lifetime greenhouse gas emissions for the project have been significantly underestimated. ... The SDEIS must include analysis of the project's expected greenhouse gas emissions both on a yearly and life-time basis – and this analysis must include indirect contributions from the generation of electricity. It is not adequate to say that 15 metric tons or more of greenhouse gas emissions cannot be analyzed for climate change impacts. A full written narrative of the climate change impacts from emissions that include power generation must be included in the SDEIS. Estimates of emissions must be based on the need to generate power for centuries to operate the two water treatment facilities. The climate change impacts of this proposed project should be described in terms of what it contributes to state, regional and national carbon emissions.	AIR02
5105	The SDEIS gives contradictory information, citing high levels of visibility impairing emissions and the expected failure of Minnesota to meet Regional Haze reducing goals, while at the same time asserting the project will have no impacts on Class I area visibility. The SDEIS must be corrected and should provide a full explanation for any assertion that Class I areas will not be impacted. Analysis of visibility impacts must include the emissions from power plants supplying energy to the project. The SDEIS should explain why conclusions differ from those in the 2009 DEIS. The SDEIS needs to explain how visibility improvements will occur in light of the state not on target to meet Regional Haze goals.	AIR08

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
5107	The SDEIS also fails to adequately evaluate the cumulative effects on air quality of the NorthMet project when combined with foreseeable projects. Not included in the analysis are the impacts from on-going and future hardrock mineral exploration in and near the Superior National Forest. The nonferrous mine project by Twin Metals, one that is in an advanced stage of development, was not evaluated for its impacts to air quality and visibility. ...Cumulative effects analysis must include all reasonably foreseeable projects, including the Twin Metals project and on-going and expected exploration. The SDEIS needs to provide mitigation measures and show how they achieve the goal of reducing this project's air quality and visibility impacts.	AIR07
5109	The SDEIS describes a voluntary anti-idle program for the operation mine vehicles, trucks, equipment and rail transportation. The SDEIS should insist on a commitment from the company to an anti-idle approach to maximize the reduction of Nox and SO2 emissions. ... The SDEIS should include a firm commitment from the mining company to an anti-idle program for its own vehicles and equipment as well as for outside delivery vehicles.	AIR07
5115	The SDEIS should describe the total amount of mercury in the process stream and that the autoclave scrubber waste will be disposed in the Hydrometallurgical Residue Facility. The potential for this mercury to be a pollution risk must be examined. Autoclave mercury emissions should be monitored more frequently than once a year. The SDEIS should contain a monitoring plan that allows for statistically reliable data on the autoclave mercury emissions.	AIR05
5117	The SDEIS analysis of the range of potential impacts to human communities, economies, cultures and health is incomplete. The analysis largely focuses on employment benefits, with no attention to negative socioeconomic impacts that can occur with mining and with changes to communities. When the SDEIS does identify potential negative impacts, it fails to analyze or mitigate the social, economic and cultural impacts. ... The SDEIS must contain a full evaluation of the socioeconomic impacts from this project.	SO04
5118	The SDEIS needs to include a more robust analysis of social, economic, cultural and health impacts from the proposed project. This section of the EIS is extremely incomplete. The SDEIS needs to fully analyze the impacts to subsistence users, recreationists, outdoor-related businesses, band members, and children from expected mercury contamination in fish. Impacts should be fully described and mitigation plans provided. The potential for bioaccumulation in fish to continue after the mine closes should be fully described and mitigation plans provided.	SO04
5119	The SDEIS needs to fully analyze and describe impacts to water quality and quantity for Colby Lake. Management approaches of arsenic and other contaminant levels should be based on supporting information. The cumulative impact of additional contaminants to Colby Lake need to be analyzed and described in the SDEIS. Potential impacts to the lake and the City of HoytLakes should be fully assessed should water quality or quantity issues occur. Mitigation plans should be described for scenarios in which exceedances or water quantity issues occur.	WR024, WR043, WR046, WR056, WR140
5120	The NorthMet SDEIS does not adequately examine the risks to worker safety and public health from asbestos-like fibers found in the ore at the mine site. ... The SDEIS does not provide information to support the assertion that a 9percent amphibole fiber content should be considered "small" and of little concern. Additional data or studies are needed to know if this percentage represents a minimal health risk or a significant health risk. ... The SDEIS should include a formal health assessment of the risks to workers at the NorthMet mine from amphibole fibers. The assessment should analyze asbestos-like fibers smaller than 5 microns in length. The SDEIS should include details of the air monitoring at the mine and plant site and in nearby communities, and describe contingency plans to address the risk to public health and worker safety if asbestos-like fibers are detected during construction, operation, closure and post-closure.	HU04
5122	The SDEIS should include an HIA [Human Health Assessment] to review the scope of impacts possible to the human communities affected by the proposed mine.	HU01

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5124	the report by Edison Investment Research Limited, which relied on data and information that PolyMet provided, suggests that a major job-creating component of the project may never happen. The Edison report indicates that Phase II, the development of the autoclave process to produce nickel precipitate, is likely to not take place. ... The SDEIS needs to explore the option of Phase II of the project not taking place and what this would mean to the beneficial impacts expected for the project.	SO04
5126	The SDEIS presents confusing and potentially inaccurate information about mining tax revenue that can be expected from the NorthMet project. Particularly confusing is the discrepancy between the 2009 DEIS information on estimates of federal and state and local taxes anticipated to be paid by the mining company and the current SDEIS. No explanations are provided for these differences and no changes in the project that could account for the differences are obvious. ... The SDEIS needs to present a more clear and consistent picture about expected tax revenue. Any differences from the 2009 DEIS should be explained. An explanation of where the \$64 million comes from is needed. Without a clearer and consistent portrayal of the information, the public cannot have confidence in these revenue expectations.	SO04
5139	The SDEIS describes an exchange without supporting evidence that it is in the public's best interest [due to]...Failure to Meet USFS Exchange Objectives... The SDEIS indicates that benefit of the land exchange for the public and the Superior National Forest is that: "The Land Exchange Proposed Action represents a transfer of surface rights...to eliminate the conflict between federal surface and private mineral estate" (SDEIS 5-577) But this land exchange fails to accomplish this goal. ... While the NorthMet exchange would eliminate the mine site from federal ownership, thus divesting the public of lands with a split estate, the proposed new lands that would be acquired also have split estates. Of the five tracts of lands considered for acquisition, four have split estates (SDEIS 3-163). Four of the five tracts fail to meet the Forest Service objective of reuniting mineral and surface rights. Future mining on these lands cannot be ruled out as possible, and thus the public could be acquiring lands that carry the risk of future land-use conflicts.... Claims that the project consolidates mineral and surface rights should be dropped, as the majority of the acquired parcels do not meet this criteria.	LAN01
5142	The roles and responsibilities should be clear. But the SDEIS includes Purpose and Need statements from the agencies that suggest some of the Co-leads may be confused about their roles and responsibilities regarding this project. ... These [SDEIS Purpose and Need] statements [for each of the agency Co-leads] suggest the agencies have confused their roles and responsibilities with that of the mining company's. This is extremely troubling. The public relies on these agencies to impartially evaluate the mine project, to fully examine potential environmental impacts without bias. The public does not expect the Co-lead Agencies to review the proposed mine project with the same goals as PolyMet Mining Company. Indeed, the Co-lead Agencies have been tasked with very different responsibilities. It is alarming that these mandates are not readily apparent in the way the Co-lead Agencies have characterized their roles in this SDEIS.	NEPA02
5145	The Category 1 Stockpile cutoff wall is not constructed at first around the west end of the stockpile. Why is this? If the plan is to wait until Year 11 of the project when that stockpile footprint is complete, what is the plan for collecting and managing the drainage off the west end of the growing stockpile in Years 1-11?	PD15
5146	The SDEIS contains no discussion about the network of pipelines conveying untreated and treated water. How many miles of pipelines are there? What are the contingency plans for breaks/damage to the pipelines? The SDEIS does not describe information about pipeline layout, engineering, or the pumps needed to push the water to various mine and plant locations.	PD04
5147	Water is conveyed between the Mine and Plant Sites via a pipeline. Treated water will be moved from the Mine Site WWTF to the Tailings Basin, and in turn, water from the Plant Site may be moved to the Mine Site to help flood the West Pit. Are there two pipelines along the corridor between the sites, or a single pipeline that must provide multiple functions?	WR131

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5148	The SDEIS notes that, "The design of the WWTF is based on the predicted water loads and constituents modeling (see Section 5.2.2)" (SDEIS 3-52). But a read of Section 5.2.2 provides no information about what that constituent make-up is, nor does any other part of the SDEIS.	PD29, WR143
5150	If the reverse osmosis (RO) is not being added until Year 40, how are sulfates being removed before then? Some may be removed through the chemical filtration, but this won't remove down to a level that meets the standard. Is the "treated water" (but not gone through RO) being sent to the Tailings Basin and it is assumed that sulfates will be dealt with by either being deposited in the Tailings Basin or getting treated again in the RO system at the Plant Site? If so, does this mean the "treated water" flowing in the pipelines from the Mine Site to the Plant Site is high in sulfates? And what is the contingency plan if this pipeline breaks??	WR131, WR143, WR144, WR147
5152	Why doesn't the WWTP at the Plant site include the evaporator/crystalizers to convert the RO to reject concentrate? Why transport it to the Mine Site?	PD07
5153	The SDEIS describes contingencies for a power outage at the Plant processing site: "In the event of a power failure, all process fluids would be contained within the concentrate dewatering and storage building and recycled to the process when power is restored" (SDEIS 3-101). But similar statements are lacking for the WWTF and WWTP. What happens in the event of a power outage at these facilities?	PD22
5154	The SDEIS provides a list of hazardous materials the project would use in construction, operation an closure phases of the project (Table 5.2.13-1; SDEIS 5-528). But the SDEIS does not specify how these various chemicals exit the NorthMet operations, if they leave the system via water, air, solid waste, or remain stored in tailings waste. If they remain on site, is there risk that they could seep into the surrounding waters through uncollected seepage? What is the plan for addressing such an occurrence? More information is necessary about these hazardous materials in the SDEIS.	HAZ01
5185	The SDEIS should include an analysis of adding water containment systems to the East Pit, with the necessary adaptation to the wastewater treatment facility to handle this additional water treatment.	WR088, WR143
5186	The SDEIS needs to be clear if it is the WWTP or the WWTF that is intended to treat East Pit water, and if it is the WWTP a full description of the process for piping the water needs to be included. The SDEIS needs to reveal if pumping rates will go higher than 1,750 gpm and provide details of that rate and how the backfill will remain saturated under such pumping conditions. The SDEIS should include examples of mines that have used this rinse method and had success at bringing sulfate levels to 250 mg/L.	PD29
5194	Particular attention should be given to reevaluating claims that the discharge of sulfates and metals will not impact wetlands and will not exceed water quality standards.	WET11, WR112, WR120
5388	In screening for alternatives, one criteria used is whether an alternative can "meet the Purpose and Need for the project" (SDEIS 3-140). But the SDEIS is not clear what the project Purpose and Need is. The SDEIS provides an Applicant's Purpose and Need, and it provides Co-lead Agencies' statements of Purpose and Need. It does not say which of these is used to screen for alternatives. ... The SDEIS needs to be clear about what the project Purpose and Need is for use in screening alternatives.	NEPA02
5389	The SDEIS should cease using the "minerals encumbrance" issue in its evaluation and rejection of the backfill alternative. It is not the responsibility of the regulatory agencies or the Minnesota public to provide potential future projects with access at the expense of useful alternatives to this current proposed project. The SDEIS must include real and meaningful evaluations of all alternatives and not limit the scope of alternatives to those that are simply what the applicant prefers.	ALT06
5391	The SDEIS should include financial assurance for indirect wetlands mitigation and should describe this fully.	FIN11

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5392	The SDEIS should seek to replace wetlands within the affected watershed. If appropriate acreage cannot be located, the SDEIS should clearly acknowledge that these wetland functions are permanently being lost within the affected watershed. The SDEIS needs to contain a discussion of what cumulative wetlands impacts this has within northeastern Minnesota and at a state level.	WET03, WET05, WET18
5394	The SDEIS is inconsistent about the intent to apply the wild rice sulfate standard seasonally. ... GLIFWC scientists disagree with the concept of a seasonal application of the standard, citing a lack of evidence or scientific basis for doing so. Research has not shown that the wild rice seed avoids impact from high sulfate levels while it is dormant. The SDEIS should be clear and consistent that the project would not apply a sulfate standard seasonally. ... The SDEIS must contain language that clearly indicates Minnesota's sulfate standard of 10 mg/L is scientifically defensible and will be applied for the NorthMet project. The SDEIS should insist that the standard is applied all year and not seasonally.	WR153
5395	Designation of wild rice waters applicable to the NorthMet project should include historic information from elders and should not exclude waters where wild rice once grew but due to human-caused sulfate levels no longer exist. Wild rice at low densities also provides important food to wildlife, and so low-density wild rice waters should also be included for application of the standard for this project.	WR154
5396	The SDEIS is also lacking in analysis of the cumulative effects of additional amphibole fiber exposure in the area. Given that rates of mesothelioma on the Iron Range are already high, the SDEIS should evaluate what the additional release of these fibers could mean for human health.	HU05
5402	When the Minnesota DNR's purpose and need in the SDEIS is exactly that of the mining company's, it appears that the agency is no longer performing its legally mandated role to evaluate the project for its ability to be "consistent with sound natural resource conservation and management principles." ...When the USACE's purpose and need in the SDEIS is exactly that of the mining company's it appears that the agency is no longer performing its legally mandated role to evaluate the project for its ability to cause only minimal adverse environmental impacts. ... Also confusing and troubling is that the SDEIS is not clear which of the Purpose and Need statements represents the overall Purpose and Need for the project. ...The statements of Purpose and Need by the USACE and the Minnesota DNR in the SDEIS are inappropriate and undermine the public's confidence in the impartiality of the Agencies and the performance of their legal mandates. The SDEIS should include statements that reflect the legal requirements of each agency and reflect an impartial review of the environmental impacts of the proposed project. The SDEIS should be clear what the "project Purpose and Need" is.	NEPA02
5981	the SDEIS for the PolyMet proposal fails to meet any of the four clean water principles and fails to match the commitment made by Mining Minnesota to adhere to these principles. We also believe the state and federal Co-lead Agencies reviewing this project can and must make substantial changes to the SDEIS so that they too can comply with these clean water principles.	PER09
5983	Given this level of risk and the failure of the mine design to meet basic clean water principles, the Friends cannot support the PolyMet project as proposed. We recommend the Co-lead Agencies either select the "No Action Alternative" for this project, or make substantial revisions to the design of the proposed mine and re-submit for public review.	PER35
5988	Approving a mine that leaves future generations with significant pollutionproblems for hundreds of years is not responsible stewardship of our natural resources, and the Minnesota Department of Natural Resources (Minnesota DNR) should reject any mine proposal that has this as part of its design.	PER35

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5990	The SDEIS does not clearly nor fully present information to the public about the water quality impacts expected with the proposed NorthMet project. Despite more than 2,000 pages of information, the document lacks key information, does not present information clearly, presents sometimes inconsistent information, and fails to answer critical water quality questions. In an Environmental Impact Statement of this type, the public wants to know the answers to questions such as: How long water treatment is needed, what is in the polluted water before treatment, what is in the water after treatment, and how effective is the water treatment? However, the SDEIS does not contain this fundamental information.	WR035, WR036, WR060, WR063, WR146, WR176
5991	Explanations in the SDEIS and agency statements have often made it confusing to know what the Minnesota DNR intended to model.	WR189
5992	According to the Minnesota DNR, the agency did not ask or try to answer a fundamental question that the public wants and needs to know: How long will water treatment be necessary? This is a key question that an environmental impact statement should examine and seek to answer. Understanding environmental impacts and crafting financial assurance decisions depend on analyzing this question.	WR035, WR036
6005	The SDEIS describes the potential to transition to “non-mechanical water treatment” at some undefined time in the future. However, the SDEIS provides no documentation, case studies, or data to support the feasibility of non-mechanical treatment successfully working for the volumes of water anticipated. The SDEIS has a responsibility to present evidence that methods of water treatment can successfully operate to protect human health and the environment. . . The SDEIS should provide documentation and supporting data for the use of non-mechanical water treatment or eliminate the idea from consideration.	PD06
6015	This proposal appears to be critical to the reclamation plan, but it is not explained, analyzed, or presented in the SDEIS. In over 2,000 pages in the SDEIS, the only reference to this plan is this vague sentence about the East Pit and the Waste Water Treatment Plant (WWTP):	PD09, PD35
6019	Dr. Maest also identifies problems with the “Monte Carlo” simulations that were run in the model: “Monte Carlo simulations used in the water quality model do not simulate the timing or characteristics of natural processes or the potential environmental consequences of the interaction of these processes with mined materials” (Maest 2014). This is a troubling issue, given how much of the SDEIS evaluated impacts relies on a model that simulates natural processes and interactions.	WR189
6020	Dr. Miller’s report (see attached) also highlights issues with the modeling that have likely underestimated water quality impacts. “The SDEIS for the PolyMet mine, and accompanying documents have uncertainty estimates for sulfate release, and they utilize the 90-95% confidence estimates for sulfate release. This same type of Monte Carlo simulations have been completed for many mines in Nevada, but are still wrong by sometimes over an order of magnitude, primarily a result of utilizing an incorrect basic conceptual model. I believe that this is the case for the East and West pits of the PolyMet mine” (Miller 2014). He also notes regarding the modeling for the West Pit and the cone of depression that will form, “I believe that the physical model proposed for the PolyMet West Pit Lake to be fundamentally incorrect, and certainly not consistent with pit lakes formed in gold bearing deposits in Nevada” (Miller 2014).	WR088, WR149, WR171, WR173
6023	The SDEIS should incorporate the issues identified in the Minnesota DNR’s own memo identifying incorrect flow numbers, and collect the additional data needed to calculate a more accurate flow.	WR003
6041	The SDEIS should examine mercury impacts if polluted water collection systems fail to meet capture expectations (perhaps assess various capture rate scenarios) and if water treatment is interrupted or functions at a lower than expected rate.	WR017, WR022, WR067
6042	The SDEIS should revisit the analysis of flow level fluctuations in the Partridge River and more thoroughly examine the potential for drying and re-wetting cycles to release mercury.	WR112

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6052	The design should include the use of a geosynthetic barrier in the wall, and the use of geomembranes with a low-permeability, soil-bentonite backfill. The maximum hydraulic conductivity of the cutoff wall should be adjusted in the SDEIS to a much lower threshold of 10-6 to 10-7 cm/s.	PD07
6053	Modeling needs to be re-run to include scenarios under which the efficiency of the groundwater collection system diminishes over time due to clogging, and a response plan needs to be identified to address this.	WR017, WR018, WR021
6054	The design must include keying the cutoff wall into bedrock to prevent underseepage, and the cover system slope should be adjusted to 2 to 5 percent.	PD07, PD15
6055	The SDEIS should describe the plan for the Category 1 Stockpile liners to degrade and how this will be addressed and financed in the future.	PD16
6056	The SDEIS should evaluate backfilling the West Pit with the Category 1 waste rock, to avoid pollution issues associated with degrading liners.	PD15
6057	“Overall, the long term stability of the wasterock deposited in the pits and covered with water is a much lower long-term risk than leaving it on the surface with a plastic sheet over it” (Miller 2014).	PD15
6058	The design plan needs to commit to maintaining the inward gradient essential for the functioning of the system. The minimum depth of the keyed cutoff wall should be described.	PD08
6059	The SDEIS needs to consistently describe the thickness of the bentonite-amended layers on the tailings waste.	GT08
6060	The SDEIS should include bench-scale tests to determine the percentage of bentonite necessary to form an effective oxygen barrier.	PD07
6061	The SDEIS needs to present evidence to show that a greater than or equal to 90 percent saturation level would be maintained in the long-term for the waste cover system. And case study evidence of the bentonite seal application method for the Tailings Basin pond must be demonstrated as working for similar projects.	PD07
6062	The SDEIS should explore the option of draining the pond before applying the bentonite seal, or explain why this option is not considered.	PD07
6063	Underlying original ground and taconite waste should be removed from beneath the Hydrometallurgical Residue Facility and an engineered stable baseinstalled.	PD19
6064	Additionally, the Co-lead Agencies need to insist that any planned expansions from the West Pit be incorporated into this environmental review process for evaluation as a connected action.	PD30
6080	The SDEIS states that a 2006 survey of the Mines Site and nearby area showed “no lynx were identified” (SDEIS 5-365). But the USFWS Draft BA disagrees, and notes, “Tracks and scat of three female lynx were identified during the survey within the study area, concentrated in areas approximately 5 miles east and south of the Mine Site...” (USFWS November 2013).	WI01, WI11
6081	The Draft BA also describes a lynx survey conducted 12 miles northeast of the Mine Site for the Birch Lake Project and Maturi Project for Franconia Minerals that discovered several lynx using the area based on scat and tracks. This survey is not mentioned in the SDEIS.	WI01, WI11

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6083	The SDEIS also incorrectly states that the Canada lynx is not on the state’s Endangered, Threatened and Species of Special Concern list (ETSC). “However the species is not listed as an ETSC species in Minnesota...” (SDEIS 4-201). This statement is inaccurate. On August 19, 2013, the species was placed on the list of Minnesota’s Species of Special Concern. The SDEIS should accurately portray the state and federal status of this species for the public’s full assessment of risks to its well-being from this project.	WI01
6086	In addition, the project would result in the degradation of 698 acres of black spruce-Jack pine woodlands, systems which are considered “imperiled -vulnerable” by the Minnesota Biological Survey. The impacts would represent a 20 percent loss of this forest type within the Laurentian Uplands. ... The impacts to vulnerable forest communities must be more thoroughly described and their loss evaluated at a state-wide level. The SDEIS should examine how this loss would be mitigated.	VEG02, VEG03
6087	PolyMet’s job projections may be inaccurate due to the influence of mechanization. ... The analysis of jobs over the life of this project needs to incorporate the likelihood of foreseeable technology replacing human labor. ... The analysis of jobs over the life of this project needs to incorporate the likelihood of foreseeable technology replacing human labor.	SO04
6088	Confusing and Misleading Information About Where The Jobs Come From... The SDEIS should present clear information about direct and indirect job expectations and where these jobs would be expected to come from geographically. Direct and indirect jobs should be presented separately, preferably in table format.	SO04
6089	No Transparency on the Kinds of Jobs... The 2009 DEIS provided information about the kinds of jobs the project was expected to create (e.g. management, mine operations, mine technical, railroad operations, plant operations). But the SDEIS provides no such information. ... The SDEIS needs to include a table similar to Table 4.10-13 on page 4.10-18 in the 2009 DEIS that shows the types and numbers of jobs expected to be created from the project.	SO04
6090	No Information About Jobs at Key Phases...The SDEIS fails to transparently describe employment expectations over the life of the mine. ...The SDEIS should include a table similar to Table 3.2-2 on page 3-17, Key Phases and Activities (Mine Site), that describes expected employment at both Mine and Plant Sites at key phases of the project.	SO04
6091	Confusing Information about Jobs After Closure... The SDEIS does not provide a percentage expectation of numbers that would need to leave the area or be seeking alternative employment locally. This is important to know to fully assess the socioeconomic impacts to the community once mining has ceased. In addition, the SDEIS does not assess how many employees will be needed to conduct the long-term post-closure work of running the treatment facilities, maintaining pipelines and collection systems, pumps and waste rock piles, the long-term maintenance that is going to be needed for centuries.	SO04
6092	Failure to Meet USFS Forest Plan Goals...The SDEIS fails to demonstrate that the Forest Plan’ goals can be met with this exchange. ... The SDEIS must document how the proposal meets both USFS land exchange objectives and the Superior National Forest’s Forest Plan Goals and Objectives. ...The public should be fully informed that a land exchange will result in an actual loss of wetlands in Minnesota. Indirect impacts need to be more fully characterized. ...The SDEIS needs to explore the significance of not mitigating the wetlands losses within the same geographic area, with the same wetland type, and how the wetland mitigation plan would affect greenhouse gas emissions. ...The SDEIS needs to examine how the [land] exchange helps it meet the Forest Plan Goal of providing a variety of uses, values, products and services for present and future generations by managing within the capability of sustainable ecosystems, in light of climate change issues associated with this proposal. The SDEIS should fully analyze the potential negative impacts to communities, employment, and the economies of the area from the loss of the federal lands and this project. It must evaluate the region’s reliance on environmental amenities such as tourism and recreation. This assessment should include the potential impacts from scenarios that include water contamination that could extend into the watershed.	LAN04

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6093	The [Land] Exchange and Climate Change...The [land] exchange will result in operations that will emit carbon in significant amounts. ... The SDEIS should be clear that the exchange will result in a loss of carbon sequestering environments. The SDEIS should address how this exchange addresses the recommendations of both the Climate Change Advisory Group and the Terrestrial Carbon Sequestration Initiative.	AIR01
6094	If analysis of alternatives relies on the Purpose and Need statements of the Co-lead Agencies, it is all the more vital that their statements reflect the legal mission mandates and not the objectives of a mining company.	NEPA02
6097	The engineering design and planning to calculate detailed financial assurance is available at the point a project reaches the Draft EIS stage. For a company to reach this stage without having this information available, and without having performed this calculation internally, would be fiscally irresponsible to the company's shareholders and board of directors. ... A detailed financial surety calculation, based on the project as proposed by the applicant, should be presented in the SDEIS.	FIN05, FIN13
6098	An initial calculation of a financial surety must necessarily be based on worst-case water quality predictions – until operational data can prove conditions to the contrary.	FIN05
6099	The high transfer rate both with the haul trucks dumping to the hopper, and the conveyor loading the rail cars, will generate a significant amount of dust in the vicinity, and in the predominant downwind direction of the Rail Transfer Hopper. And, since the rail cars are open-top, there will be an accumulation of dust along the rail corridor between the mine and mill. ... The Rail Transfer Hopper and rail car loading conveyor and platform should be in an enclosed structure, and the rail cars fitted with a top that would limit the loss of ore-dust along the rail line between the mine and mill.	AIR07
6100	A cutoff wall would be constructed to enclose the Category 1 waste rock pile to prevent metals leaching contaminants from reaching groundwater. ... A permeability of 1x10-6 [cm/sec] or less should be the goal of the cutoff walls for the Category 1 waste rock and the tailings cutoff wall.	PD16
6101	Geosynthetic clay barriers can significantly increase the effectiveness of a cutoff wall, but it is not clear exactly what would trigger the use of this barrier. And, if installed, the barrier is likely to decrease the permeability of the section of the cutoff wall significantly over sections that do not have the barrier. It would be more consistent to use a barrier for the entire wall, or not at all. Recommendation: More definition needs to be provided in when a geosynthetic clay barrier would be employed.	PD07
6103	In Table 3.2-9 Summary of the Stockpile Liners and Covers (SDEIS, p 3-51) the liners that will be employed for the 3 categories of waste rock and the ore surge pile are described. The Category 2/3 Stockpile liner: "12-inch compacted (1x10-5 cm/s) subgrade overlaid by 80-mil LLDPE geomembrane, covered by a 24-inch overliner drainage layer." The other liners have (1x10-6 cm/s) subgrades. Even though the effective permeability of the total liner system is governed by the permeability of the 80-mil LLDPE geomembrane, since 1x10-6 cm/s is essentially the minimum standard for a liner, for sake of standardization the Category 2/3 Stockpile liner should also have a 1x10-6 cm/s subgrade. Recommendation: For standardization, both on the project and with most other liners, all liners made of natural materials should have a permeability of 1x10-6 or lower.	PD15
6104	"...The concentrate is expected to be 8 percent to 10 percent moisture, which is not expected to generate dust during loading." (SDEIS, p 3-116) ... Concentrate ALWAYS creates dust at some point. If the rail cars are loaded in an enclosed building, this should limit the escape of dust to the environment, but to assume that dust will not occur, or that there will no leakage of small amounts of concentrate along the transportation corridor, would be an oversight.	AIR10

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6105	An example of a reclamation plan with an appropriate level of planning detail and cost estimates is the Pogo Project Reclamation and Closure Plan, December 2002. The document is available digitally through the Alaska Department of Natural Resources, Anchorage, AK, and was is titled the Final Environmental Impact Statement, Pogo Gold Mine Project, USEPA, Region 10, September, 2003.	FIN05
6106	A “preliminary” reclamation closure cost estimate is presented in SDEIS Table 3.2-15 Preliminary Cost Estimate for Closure (SDEIS, p 3-138). However, this "preliminary closure cost estimate" is not supported by calculations and/or detailed information. ... In order to develop a ballpark estimate of the financial surety that might be required for the NorthMet project, CSP2 developed a Net Present Value (NPV) spreadsheet to estimate the NPV of the long-term costs. Table 2 [see full comment letter for table]: Assumptions for NorthMet Net Present Value Calculations, contains a list of the basic assumptions made for this model. ... The spreadsheet calculations are most sensitive to variation in the Real Interest Rate. This means that long term management of the financial surety corpus is very important, and that uncontrollable variations in the Real Interest Rate could significantly impact the corpus if it remains low for a significant period of time. ... Recommendation: Because the interest and return on investment rates, and the operating costs, can make hundreds of millions of dollars difference in the financial surety required for the NorthMet mine, these assumptions/calculations should be made available for comment in the SDEIS.	FIN05, FIN08, FIN13
6107	In a discussion of the 2W tailings cell, it is noted: "...in Cell 2W, rapid construction in later years of development resulted in oversteepened dams on all sides of Cell 2W. Some seepage has occurred from the dam in this and other areas along the dam embankments. Other points along the dam embankments have been subject to erosion of the perimeter dam due to the leaking and failure of LTVSMC discharge pipes, and from the natural geomorphological processes such as melting snow, precipitation runoff, soil creep, wind erosion and others." (SDEIS, p 4-371) There is no indication that this issue will be addressed as a part of reclamation. Recommendation: A plan to address the oversteepening of the embankments of Cell 2W should be included in the closure/reclamation plan.	GT09
6108	Water alone can help suppress dust but for roads and similar flat wind-erosive surfaces it is recommended that calcium or magnesium chloride or similar suppression enhancer be required in the water used for dust suppression to extend the durability of the treatments. The Air Quality Management Plan similarly calls for “water and/or MPCA approved dust suppressants” Recommendation: Unless there is a compelling environmental or safety reason, water (or snow) should not be used alone as a dust suppressant and instead magnesium chloride or similar suppression enhancer should be added to water to enhance dust suppression. Recommendation: The mine should investigate and, where appropriate, mitigate reports of airborne dust that come from any entity, whether a mine employee or observer off the minesite.	AIR07
6110	Annual averages are convenient for permitting purposes but it will be critical as part of the air quality permitting process and during mine monitoring to ensure that short-term air quality criteria are not exceeded. Recommendation: The mine’s air quality permit and air monitoring protocol should ensure that short term and peak air quality conditions are measured, representative, and reported to the public and regulatory agencies to ensure that short-term peaks, whether or not they violate standards, are considered as part of air quality degradation.	AIR13
6113	the Mine Plan should review and analyze the reactivity of fugitive dust from waste rock sources (piles, handling, transport, etc.). If this review and analysis indicates the potential for degraded air quality or the potential for fugitive dust to contaminate lands or waters it travels to, then the regulatory agencies should take appropriate steps to halt such fugitive dust. Recommendation: Waste Rock fugitive dust should be reviewed and analyzed to ensure that it does not pose a special hazard or threat to human health or the environment (beyond the typical opacity or other visual considerations).	AIR10
6135	Recommendation: The SDEIS should detail PolyMet’s actual commitment to an anti-idling program that maximizes reduction of vehicle-based NOx and SO2 emissions while accommodating mine-based requirements for productivity and safety.	AIR07

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6136	It is important to know how much mercury is in the system, where it is going, and how stable it will be in its final form. This information should be disclosed in the SDEIS, and not buried in technical documents. The scrubber mercury waste will be placed in the hydrometallurgical tailings facility, but this is not mentioned in SDEIS, only in the reference documents. This is significant process step and should be discussed in the SDEIS. Recommendation: There should be a discussion in the SDEIS of the total amount of mercury in the process stream (bulk tailings, hydrometallurgical tailings, or autoclave scrubber waste), and where the autoclave scrubber waste will be disposed.	AIR05
6140	Once a year measurements will not provide enough data to ensure statistically reliable measurements of the efficiency of the mercury capture systems. Recommendation: In order to ensure that the mercury capture systems on the autoclaves are functioning as designed, a monitoring scheme should be required that will provide statistically reliable data on the autoclave mercury emissions.	AIR05
6146	Recommendation: The SDEIS should include noise contour maps depicting offsite noise contours from mine activities (including transportation to and within the site) and cumulative noise impacts [particularly to federal and state recreational lands].	N03
6152	1. Tonality. Tonal noises which have a narrow sound frequency, such as the whine of an electric motor or an electric saw. A tonal audibility or annoyance factor may be calculated by comparing the tone level to the level of the surrounding spectral components.2. Low Frequencies. Low frequency noise emits from machinery, all forms of transport and turbulence, turbines, exhaust gas, compressors, etc., and can travel greater distance than audible noises. Low frequency noise may cause notable human disturbances even when the decibel level (the sound pressure level) is below 30 dBA.3. Fluctuating Noise. Fluctuating or intermittent sounds are inconsistent in time and/or duration. Examples include generators or machinery operated in cycles, etc. Fluctuating noise has been shown to increase the annoying aspects/annoyance factor of the noise (notably when compared to average sound levels).4. Impulsive sounds. Impulsive sounds are brief, abrupt noises that can cause startling effects that cause greater annoyance levels than may be expected from just measuring the sound level. An impulsive sound at mine sites would be blasting noises, but could also include metal on metal, rock on rock, or rock on metal noise (such as dumping rock from a loader onto a transport truck, railcar, or rock pile).Recommendation: In addition to decibel (volume) impacts, the SDEIS should consider the potential for impacts from tonality, low frequency noises, fluctuating noise, and impulsive sounds. The focus should consider the Boundary Waters recreation areas but could also consider other land uses around the mine site.	N06
6165	The PSHA [Probabilistic Seismic Hazard Analysis] should have used the Maximum Credible Earthquake (MCE) as the design earthquake. ... Since a tailings dam must stand in perpetuity, the design earthquake should be equivalent to the Maximum Credible Earthquake. ... If the MCE/10,000-year event is used for the analysis of the 2,475-year event, the horizontal acceleration (horizontal g-force the dam is subject to) will increase significantly.	GT05
6171	Probabilistic determination for the size of the largest earthquake is appropriate, but the assumption of 100 miles for nearfield is going to make the horizontal acceleration used to design the dam lower than what it should be. ... probabilistic methods are the more conservative way to determine the magnitude of a Maximum Credible Earthquake for dam analysis. For tailings dams the most conservative choice for the location of the Maximum Credible Earthquake would be what is sometimes referred to as a 'floating earthquake' on an undiscovered fault that passes very near the site of the dam. This is a way of recognizing that we do not know the present, future, and even the past locations of significant faulting, and associated earthquakes. The conservative choice for a Maximum Design Earthquake would be a Maximum Credible Earthquake that ruptures the ground surface on which the dam is built.	GT05

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6179	Dynamic analysis is the most rigorous method of evaluating dam survivability under seismic loading. Typically a dynamic analysis will use finite element or finite difference programs such as TARA (Finn et al 1986), FLAC (Itasca Group 2002), or PLAXIS (PlaxisBV 2002) in which dynamic response, pore-pressure development, and deformations can be fully coupled. These tailings dams must contain this material in perpetuity. If not, the cost of collecting spillage due to an earthquake-related failure, and rebuilding the containment structure, would be many millions of today's dollars. ... If these containment structures are going to be built, the assumptions used to check the design should be conservative, and the models the best available.	GT02, GT05
6185	the geotechnical analysis of the dam should be conservative, and as with the bulk tailings dam, dynamic modeling should be performed. In addition, it is proposed that the hydrometallurgical facility be placed on a residual layer of taconite tailings. Even if this material will be "well-compacted" it would be safer to remove the original peat and silty sand/gravel, and the taconite tailings and slimes, and replacing this material with compacted fill, so that the hydrometallurgical facility is built on a well prepared and verifiably stable base. This is the conservative approach. Recommendation: The underlying original ground and the taconite waste should be removed from underneath the hydrometallurgical tailings facility, an engineered stable base installed, and dynamic modeling performed on the hydrometallurgical dam.	GT11
6189	The table [Table 2 in Appendix B Underground Mining] is fine as far as it goes, but there is no discussion of the sensitivity to change in metals prices. For example, what if the price of gold increased \$500/oz. or copper increased \$0.50/lb (both reasonable assumptions), how would that affect the net extracted metal value? Would this make the underground mine economic? If so, then an evaluation of an underground mine as an alternative would be warranted. Recommendation: A metals cost sensitivity analysis should be added to the Underground Mining Alternative Assessment to verify that the underground option is not economical with higher metals prices.	ALT01, ALT06
6199	Recommendation: All wastes that could be disposed in any pit, and the pits themselves, should be characterized to ensure that there will not be regular or seasonal contamination directly or indirectly to surface or ground waters.	WR071
6200	Recommendation: All pipelines proposed for abandonment in place should be evaluated to ensure that their residual contents will not cause contamination and that their presence cannot facilitate connectivity between otherwise isolated bodies of surface and/or ground water, whether constant or intermittent.	PD09, PD35
6201	Recommendation: The Reclamation Plan should expressly state the applicable federal and state laws, regulations, and rules that apply and that will be complied with in the testing, handling, storage, and disposal of all hazardous, toxic, nuclear, and related materials and wastes. Recommendation: The Reclamation Plan should require a tracking system that demonstrates that materials are actually disposed-of according to the Reclamation Plan and applicable laws. The tracking system should include not only affirmation but documentation that certifies proper materials disposal.	PD09, PD35
6217	The Reclamation Plan should more clearly predict the water balance desired in the East and West Pits and the conditions that could impair it from being achieved...Recommendation: The Reclamation Plan should ensure that water management in both the East and West pits do not require long term volumetric management until they reach their steady-state/full/overflow condition. The Reclamation Plan should ensure that specific goals for pit pools are established and achieved.	PD35, WR173
6222	Recommendation: The Reclamation Plan should provide sufficient detail about wetlands construction and associated decision-making processes to allow regulatory agencies and the public to reasonably understand what is likely to happen and what criteria will be employed to determine reclamation success, and what steps will be taken in the event that reclamation does not achieve established criteria.	PD09, PD35
6224	Recommendation: The Reclamation Plan should establish specific fencing goals to ensure that the barriers proposed in the Mine Plan will achieve an appropriate, reasonably achievable barrier to access by people, including children, and wildlife.	PD35

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6226	Recommendation: The Reclamation Plan should plan for measures to allow animals to expressly rescue themselves should they fall into the pits or excavated channel between them. This should also include predicting the impacts and express protections for both terrestrial wildlife and birds that may land on contaminated waters. If contaminated waters present a reasonable threat to animals then additional measures should be committed-to and employed (such as hazing or surface netting for birds) to ensure that the pits do not become wildlife death traps.	WI04
6287	Recommendation: The Reclamation Plan should establish clear, measurable erosion goals including success criteria(such as less than x-feet of rilling per y-area and no erosion wider or deeper than z-inches) and responses to failure to meet those reclamation criteria, including but not limited to treatment protocols; long-term protection from postreclamation disturbances; timeframes over which success will be measured and how criteria failure or re-treatment activities will re-start timeframes, etc.	PD09, PD35
6303	The Reclamation Plan should predict the likely compaction caused by the waste rock and overburden piles and thereby calculate the necessary treatments needed to return them to productivity. The reference to scarification may not reach the depth of compaction without additional measures. The Reclamation Plan therefore should model/predict compaction rates and depths and commit to ensuring that reclamation activities reverse this compaction. The Reclamation Plan should further commit to adequate testing and removal of contaminated soils to a 'clean' depth (depth at which contamination no longer exists) below the waste rock and overburden piles. This will be particularly important for the Class 1 waste rock but should apply to all materials that contain contaminants. Finally the Reclamation Plan should establish wetland function goals that will be achieved...Recommendation: Constructed wetlands should be not be presumed successful for any footprint until they are constructed and successfully functioning, at the desired type and level, for at least 5-10 years. The Reclamation Plan should establish wetland size/volume and function goals that will be achieved. The commitment to try to re-establish buried wetlands should to be substantive and measurable, not simply a 'commitment to try.'	PD35
6319	Recommendation: The Reclamation Plan should specify in detail the wetlands reclamation and restoration (and wetlands 'replacement') activities that will occur. It should further establish specific goals and standards that will be met, and establish specific responses to goals that are not met. Finally, it should establish the criteria to be used to determine that it is not possible or practicable to restore on-site wetlands so that the regulatory agencies and public can know in advance just what will happen and how decisions will be made.	PD09, PD35
6320	Recommendation: The Reclamation Plan should commit to removing all waste rock and overburden pile facilities and all underlying materials that are contaminated or contain contaminated materials.	PD35
6322	Recommendation: All reclamation plans should be subject to full public and regulatory review prior to permitting and establish clear success criteria and responses to failure to meet those reclamation criteria. This should include, but not be limited to, plan-specific goals, objective criteria for each goal, timeframes over which success will be measured and how criteria failure or re-treatment activities should re-start timeframes, etc. Recommendation: The reclamation plans should be reviewed and updated on a regular schedule, such as every 5 years, which will allow regulatory agencies and the public to monitor and predict reclamation success and issues and also allow for appropriate bond recalculation.	PD01
6323	Recommendation: The Reclamation Plan should identify clear revegetation goals and methods, including revegetation standards, timetables, etc.	VEG05
6324	Recommendation: The Reclamation Plan should comprehensively identify all roads and clearly state how they will be reclaimed, including their short term and long term uses (or lack thereof).	PD36

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6330	the Reclamation Plan should establish specific requirements for soils. This includes, but should not be limited to, pH, fertility, microbial biota, ratios of: sand/silt/clay, and nutrient cycles, such as for nitrogen and organic matter. Prior to mining, and based on pre-mine conditions, the Reclamation Plan should characterize the existing soils to guide the standards for post-mine soils. Specific topsoil requirements should be established to ensure that all growth media is suitable and will maximize the potential for revegetation success. ... Recommendation: All soil material should be salvaged, stored, accounted for, and distributed to maximize revegetation potential.	VEG05
6331	Recommendation: The Reclamation Plan should establish general criteria and guidance to ensure that materials placement where topsoil is replaced does not allow small size materials to be placed on materials that have much larger size particles. Where this could happen, an interlayer of mid-size materials should be placed between them.	PD09, PD35
6335	To preserve soil integrity (including organic materials, microbes such as mycorrhizae, promote aeration, reduce weed introduction, and reduce erosion, the Reclamation Plan should identify specific steps that it commits to employ to establishing ‘nurse’ crops on the topsoil salvage piles. These plants should be consistent with, and not compete, with the planned postmine revegetation, especially agricultural seeding/planting. Recommendation: The Plan should develop detailed topsoil salvage and storage plans to ensure that the maximum amount of materials is salvaged for reclamation. These materials should be stored to maximize soil health and reclamation efforts. To ensure that all viable growth media is salvaged, characterization of materials should include field observation and not solely rely on a ‘standardized’ depth measurement.	VEG05
6343	Recommendation: Inspection of reclamation at all sites should be based on a decreasing schedule of frequency that begins with a monthly or every-other-month schedule and reduces to quarterly after one year and semi-annually after two years of each inspection schedule without the need for remedial actions. If remedial actions are required then the inspection schedule should re-start for that site.	PD09, PD35
6344	Recommendation: Establish clear noxious species/weed criteria, including the lowest amount of weeds that will trigger treatment and the highest allowable percentage of noxious weeds that will be allowed for bond reduction/release. Recommendation: Establish minimum percentage vegetative cover goals of at least 50% after three years and 80% for five years before determining “success” or allowing relevant bond release. Recommendation: Establish clear alpha and beta diversity requirements for vegetative cover. Recommendation: Revegetation success should be measured no sooner than five years after revegetation goals have been met - without additional treatments or activities. If additional treatments or activities are undertaken, the 5-year clock should restart to ensure that revegetation and long-term plant establishment has actually occurred.	VEG05
6345	Recommendation. A weed-prevention program should be developed and implemented. At a minimum, this plan should include, but not necessarily be limited to: Certification of weed-free seed; Processes to prevent weed introduction (such as washing vehicles entering the site); Weed-response plan identifying how weeds will be controlled if they do come to the site.	VEG05
6346	Recommendation. Contaminant release and incident reporting structures should require that the company provide environmental data and reports to the public. There should be full transparency and the company should commit to informing the public and government about any unplanned or unpermitted releases as soon as it becomes known - not just during the regular document/reporting cycle. Annual or even quarterly reports do not adequately address the public’s right to know about problems at the mine. These are essential for good operating procedures and public trust.	PD24
6558	The number of samples of NorthMet Project material in the waste characterization program is inadequate for the volume of wastes predicted to result from mining.	PD15

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6559	Assumptions about the lack of or delay in acid generation and the lack of substantial metal/contaminant leaching are poorly substantiated and conflict with actual results. The SDEIS and associated documents declare that Category 1 wastes will “never” generate acid. Given operational realities and existing characterization results, this seems like a poor assumption and does not consider the potential to leach other contaminants, including those added by mining.	PD15, WR025
6560	Category 4 and some Category 2/3 wastes will likely go acidic more quickly than predicted in the model. If this is the case, submerging them in the pit may not be an effective management strategy.	PD15, PD35, WR029
6561	The SDEIS and associated documents do not discuss or even mention the need to dewater the area around the pits (using pumping wells) during mining. Dewatering wells will likely be required – not just sumps in the pits themselves – and no plans are in evidence for the treatment of pumped dewatering water during operation. At a minimum, the dewatering water is expected to have elevated concentrations of ammonia, nitrate, and sulfate and will require treatment. The treatment pilot tests assumed dewatering water would have nearbackground levels of nitrate and ammonia, so the effectiveness of the methods for removal of these constituents under mining conditions is not known.	PD03, WR013
6563	The Category 1 wastes are the only wastes that will remain on the surface in perpetuity. No liner is proposed for the facility, and the mine plan assumes that seepage collection and treatment will no longer be necessary at some unspecified time after mine closure. The leaching results for this waste category and the closely associated Category 2/3 wastes, and the likelihood that small differences in percent sulfur can readily be separated, suggest that releases from the pile could be more problematic than assumed in the SDEIS. Category 1 wastes will likely include wastes currently designated as Category 2/3 wastes, which will leach higher concentrations of contaminants.	PD15, WR017, WR134
6567	The modeling approach uses Monte Carlo simulations, which in theory cover a wide range of possible inputs and outcomes. However, because of limits placed on concentrations leached from the wastes and mined materials and the use of averages, the high end of potential contaminant concentrations has been excluded from consideration in the model.	WR026, WR060, WR173
6568	Monte Carlo simulations used in the water quality model do not simulate the timing or characteristics of natural processes or the potential environmental consequences of the interaction of these processes with mined materials.	WR189
6570	The model assumes that essentially all contaminants will be adsorbed or otherwise removed as mine-affected waters travel along prescribed flowpaths to receptors. The model does not simulate natural processes that could cause elevated concentrations of mine-related contaminants to reach groundwater or surface water resources, including flushes of leached contaminants during early snowmelt or other hydrologic events or movement along preferential pathways.	WR058, WR173
6572	Given the uncertainties in modeling, it is likely that mercury loads could increase to the Embarrass River (as stated in the SDEIS, p. 5-8) and the Partridge watershed. At a minimum, an independent review of potential mercury loadings and a nondegradation demonstration should be completed as part of the Supplemental Final Environmental Impact Statement (SFEIS).	MERC23
6573	The use of RO treatment during closure allows for more protective targets. It strikes me as odd that the better, more expensive, and more operationally difficult treatment methodology would be applied after the mine closes. ... a contingency should be included for discharge of treated water during operation that meets the most stringent water quality standards and criteria.	WR143
6576	According to the SDEIS (Chapters 2 and 4) and the Water Management Plans (Polymet Mining, 2013b), groundwater and surface runoff flowing into the pits during mining will be collected in sumps and transported to the waste water treatment facility ... There is no mention of dewatering using wells around the pits. Without dewatering wells, the degree of hydrologic control outside the pit is uncertain. Even with dewatering wells, mine water capture is uncertain because of the fractured nature of the bedrock.	WR010

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6581	The Pilot Testing Report (Barr Engineering Company, 2013) does not address removal of nitrate or ammonia and lists no treatment targets for these parameters. The water used for testing of the treatment process had very low nitrate and ammonia concentrations (generally at or below detection), and the testing program therefore did not adequately investigate removal of these constituents. Additional treatment pilot tests should be conducted to evaluate the removal of nitrate and ammonia at reasonable expected concentrations (at least 100 mg/L as N of each).	WR013
6585	The work plan also states: Fractured bedrock, such as is found at the mine site, is inherently difficult to simulate and predict even when extensive hydrogeologic data is available, which is not the case for the mine site. Even with this admission of large uncertainty, there is no contingency plan for pumping of groundwater surrounding the pit or for discharge to surface water if volumes exceed those needed or able to be stored.	WR130
6587	The mine water balance should be recalculated with the volume of dewatering water from pumped groundwater wells included. An estimate of dewatering water quality and a plan for treatment of dewatering waters should also be included in the SFEIS. Figures showing the volumes of water for each component of the water balance, under low stream flow/groundwater elevation and high stream flow/groundwater elevation conditions should be included in the main body of the SFEIS.	WR181, WR182
6592	It is important that the water balance issue, especially whether discharge of treated water will be needed during operation, be sorted out before the SFEIS is completed. If discharge is required during operation, at a minimum, a contingency NPDES permit will be required well before mining begins.	WR182
6593	Polymet Mining repeatedly makes the argument that stratigraphic units within the deposit, and even within the Duluth Formation as a whole, are so similar in terms of their environmental behavior that distinctions should not be made ... This may be true based on geology, but they do not have the waste characterization information to reliably back up these statements in terms of environmental behavior.	WR025
6594	Based on the acknowledged difficulty in excluding material from higher-sulfur waste categories and the uncertainty associated with the leaching characteristics of any waste category, it is reasonable to assume that leachate concentrations from the Category 1 and other stockpiles could be higher than predicted. If this is the case, the environmental protection of groundwater, surface water, and aquatic biota relies on the optimal functioning of the engineered mitigation measures.	WR127, WR128, WR134, WR173, WR178
6595	Seasonal flushing of contaminants from the waste rock piles and the pit walls should be evaluated in terms of concentrations generated in leachate and the effects on downgradient groundwater and surface water, using concentrations and flows that reflect observed and predicted seasonal flows and concentrations.	WR173
6596	Large Table 3 in the Polymet Mining (2013a) shows that most release rates for non-acidic conditions in waste rock were derived from HCT data. However, in the main body of this document (p. 54), it states that non-acidic release rates for Category 1 and 2/3 wastes and ore are instead based on %S values in solid samples. If this is the case, and it should be clarified in the FSEIS, it means that sulfate release rates for all Category 1 waste rock are based on an approach that ignores measured solution concentrations of sulfate in laboratory or field leach tests.	WR025
6597	Additional runs of the water quality model should be conducted for the FSEIS that capture the higher range of laboratory and field sulfate concentrations, especially for Category 1 waste rock simulations.	WR026
6599	Using a linear regression, the R2 values for Category 1 and 2/3 waste rock are only 0.60 and 0.34, respectively. Polymet then applies a fixed-zero intercept, and the R2 values increase to 0.89 and 0.81, respectively. This approach yields an average release rate for all non-acidic Category 1 and 2/3 wastes and ignores higher sulfate release rates that would produce higher sulfate concentrations. This averaging approach also ignores initial flushes of sulfate, which occur over and over again under field conditions (see SRK Consulting, 2007, p. 12).	WR025

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6601	The poor correlation (without adjustment) and lack of inclusion of higher values suggest that the approach used to estimate sulfate release rates would underpredict maximum sulfate concentrations for Category 1 and 2/3 wastes and should not be used.	WR025
6603	Polymet Mining (2013a, Section 8.1) goes on to discuss a complex set of approaches for calculating release rates for constituents other than sulfate. These approaches are summarized in Large Table 3 and include using the following: for copper - the Cu:S ratio from aqua regia results; for nickel in Category 1 wastes- the Ni:S ratio from Category 4 aqua regia results and the Ni:Mg ratio in olivine from microprobe results; and for zinc - the Zn:Mg ratio in aqua regia results. The multitude of approaches for generating model release rates in different waste categories seems enormously unnecessary, generates confusion, and lacks transparency. Some of the approaches also seem scientifically indefensible.	WR025
6604	Even more importantly, I could find no convincing evidence was presented regarding why the Ni:S ratio in solid Category 4 waste rock is relevant to the Ni release into solution from Category 1 waste rock, whether Ni occurs primarily in olivine, or why ratios (e.g., Ni/S, Ni/Mg) are the appropriate measure to use to estimate nickel release. The inputs to the water quality model should be recalculated in a way that honors the available field and laboratory leachate information and avoids using ratios of constituents in solids that have not been shown to predict environmental behavior.	WR025
6606	The pH-dependent concentration caps for acidic and non-acidic Duluth Category 2/3, 4, and ore samples mimic the 95th percentile and maximum values for the AMAX pile leachate and seem to be reasonably conservative (see Polymet Mining, 2013a, Large Tables 4, 13, and 14). However, the caps proposed for Category 1 waste rock are not conservative enough because they assume that pH values in the leachate will only go as low as pH 7	WR001
6607	To better reflect the measured and likely pH conditions of Category 1 stockpile leachate, pH-dependent concentration caps should use AMAX pile leachate concentrations for pH values between 6.0 or 6.5 and pH 7.5.	WR033
6608	Polymet Mining (2013a) “proves” that submerging wastes will stop the oxidation of sulfide minerals and the associated release of contaminants using equations (Polymet Mining, 2013a, p. 117). A better approach would be to conduct laboratory column tests that submerge already-acidic NorthMet or Duluth Complex rocks and evaluate the effect of subaqueous conditions on contaminant release.	WR025
6609	A more conservative scenario should be run in the model that does not include adsorption along flowpaths. As discussed in Section 4.1.2 of these comments, a scenario should also be run that includes seasonal flushing of contaminants from waste piles and pit walls to downgradient groundwater and surface water.	WR058, WR173
6611	Polymet should provide a concise summary of the changes in characterization approaches and model input values over time and state clearly which results were finally used to estimate water quality in the model. The original geochemical and water quality data should be presented on the MDNR website in a user-friendly electronic format, with transparent information on the sources of all data.	WR025, WR189
6612	An independent review of potential mercury loadings and a nondegradation demonstration should be completed as part of the Supplemental Final Environmental Impact Statement (SFEIS).	MERC23
6613	All treated effluent during all phases of mining should meet the most stringent applicable water quality evaluation criteria for the NorthMet Project. Water with project-relevant nitrate and ammonia concentrations should be tested for treatment. A plan for treatment and discharge of dewatering water during operation should be in place in the SFEIS.	WR013, WR115
6614	The mine water balance should be clearly spelled out with volumes of water generated at the mine site and needed at the plant site – under low streamflow/groundwater elevation and high streamflow/groundwater elevation conditions at different points in the mine life. The estimates should include ranges that consider the need to pump groundwater around the pits and the effects of changing climate.	WR056, WR060, WR181, WR182

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6615	Category 1 wastes should be lined or backfilled into the West Pit upon closure.	PD15
6616	Submerged column tests should be conducted on Category 2/3 and 4 wastes that have gone acidic, and the results should be used to evaluate the effectiveness of submerging wastes in the pit.	PD15, WR025
6618	The manipulations that occur to leachate chemistry to get it into the model are opaque at best. A clearly written explanation should be provided that takes the reader through an example for one or two contaminants of concern (e.g., copper or nickel), for all waste rock/ore categories, under non-acidic and acidic conditions, that includes: (1) Initial concentrations, based on the release rates or method(s) used (some will be a function of pH); (2) concentrations after applying the four scale-up factors (water contact, particle size, temperature, and acidity); and (3) actual input values used in the model representing waste rock leachate concentrations.	WR025
6619	Release rates should be based on field or laboratory HCT measurements rather than on complicated combinations of solid and solution values.	WR025
6620	Factors of safety could be included relatively easily to ensure that potential environmental effects are not being underestimated.	NEPA14
6621	The pH-dependent concentration caps for Category 1 wastes should use AMAX pile leachate concentrations for pH values between 6.0 or 6.5 and pH 7.5.	WR025
6622	Scale-up factors for Category 4 wastes should be re-evaluated.	WR025
6623	Time to onset of acidic conditions for at least Category 4 wastes should be re-evaluated.	WR025
6624	The model should be re-run with more protective assumptions, including an assumption of no adsorption along flowpaths and seasonal flushing of contaminants from waste rock and pit walls. A scenario should also be run that considers transport along a preferential flowpath to surface water. Model results should also include the pH in the pit, along flowpaths, and in the Partridge River.	WR056, WR173
6643	The appearance of fen indicator species (e.g. northern white cedar <i>Thuja occidentalis</i> ), bog birch ( <i>Betula pumila</i> var. <i>glandulifera</i> ), balsam fir ( <i>Abies balsamea</i> ), alder ( <i>Alnus</i> sp.), and willow ( <i>Salix</i> ) in the coniferous bog type at the NorthMet site clearly indicates that these peatlands are minerotrophic fens and not ombrotrophic bogs. ... This distinction between ombrotrophic and minerotrophic peatlands is important since this ombrotrophy was used to evaluate the vulnerability of the NorthMet wetlands to mining activities.	WET09
6646	The datasets that supports the NorthMet wetland classification does not allow an explicit critique of whether the wetlands within this site are ombrotrophic bogs or minerotrophic fens. These data should have been reported for well defined vegetation plots so it would be possible to discern actual plant assemblages, the relative abundance of all species, and the linkage of species assemblages to surface water chemistry. The surface water chemistry from each vegetation plot should have been analyzed with a pH meter and major cations particularly Ca.	WET09
6647	Perched recharge mounds are likely to occur within wetlands of the NorthMet site but no convincing evidence is provided to support their presence. A convincing test would be water level measurements in piezometer nests installed above and below the hydraulic confining layers that demonstrate the existence of a perched water table mound. It should be kept in mind that water levels will quickly respond to precipitation events in any piezometer installed within an unconfined aquifer. It should also be kept in mind that, the magnitude of the pumping tests performed for the EIS is probably orders of magnitude lower than that of actual mine dewatering operations.	WR071, WR120

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6648	Wetlands in recharge zones (areas where surface waters move downward and recharge the underlying groundwater system) would be much less vulnerable to contaminant plumes transported through groundwater flow systems. However, all wetlands within the study area could still be vulnerable to contamination transported by runoff during the flush of spring runoff. This source of contamination would be greatest after winters with a deep winter snowpack and an abrupt spring thaw.	WET24
6651	I think we are missing a golden opportunity to preserve and restore one of the most outstanding peatland complexes in northwestern Minnesota. This wetland complex is found in the Saint Louis River watershed and has been previously disturbed by drainage ditches, roadways, and a railroad crossing. However, it contains excellent examples of raised bogs, the most outstanding patterned fen in northeastern Minnesota, and populations of several rare, endangered or threatened plant species including <i>Carex exilis</i> , <i>Rhynchospora fusca</i> , <i>Xyris montana</i> , and <i>Juncus stygius</i> . Moreover, the site is presently tax-forfeit land and can be purchased, restored, and donated to the Minnesota DNR to be operated as a Scientific and Natural Area. The peatlands within this tract are more comparable to those of the NorthMet site with the principal exception of their larger size.	WET03
6652	The wetlands within the NorthMet site should be monitored by repeat sampling of permanent plots that are laid out prior to the onset of mine development. I would suggest using standardized relevé plots (100 m <sup>2</sup> for nonforested sites and 400 m <sup>2</sup> for forested sites) following the procedures described by Glaser et al. (1981; 1990) and adopted by the County Biological Survey of the Minnesota Department of Natural Resources. The vegetation within these plots needs to be documented prior to the onset of mine development in order to provide baseline data for evaluating any future changes that may be produced by mining operations. All species within the plot need to be identified (not just the dominant species) and assigned a semi-quantitative or quantitative measure of abundance and dispersion. In each plot water samples should be collected from the peat surface (if there is standing water) or shallow pits. These samples should be analyzed according to standardized procedures. It is strongly recommended that pH measurements should be made at the time of sampling or the end of each sampling day with a pH meter that has been calibrated with appropriate pH buffers. The water samples should then be filtered and acidified for analysis of cations (but not anions). In addition to the metals and anions most likely to be contaminants from mining operations these measurements also need to include Ca.	WET22
6657	I think the EIS statement would have been a much stronger document with respect to the wetland section if the vegetation data was also presented for relevé plots or randomized grid of sample points	WET24
6659	I would also highly recommend some data on peat depths (which can be quickly compiled with a probe). The periodic re-sampling of these plots would provide the best and most cost-efficient indicator for major impacts of mining operations on the wetlands in the NorthMet site.	WET09
6661	Please explain how a perched recharge mound could develop over a sandy textured aquifer. This statement does not seem reasonable according to the description of perched recharge mounds in Todd & Mays (2004)	WR120
6663	Surface flow laterally across the wetland complexes is negligible because of the flat slopes and surface roughness [What about during the flush of spring snowmelt when the winter snow pack melts? The meltwaters must drain downslope ... What about during the flush of spring snowmelt when the ground is still partially frozen?]	WR148
6665	Have any perched water tables been documented by hydraulic head measurements from nests of piezometers?	WR071, WR120
6666	But there could still be significant infiltration and solute transport over time through both the peat strata and the silty sand. There is a difference between slow rates of flow and no flow.	WR107, WR108

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6669	What was the pH and Ca concentrations of the surface waters in these peatlands? A raised bog, which is ombrotrophic (solely nourished by rain) has a pH less than 4.2 and Ca concentrations less than 2 mg/l. In Minnesota raised bogs have surface waters with a very narrow range in pH (3.6-4.2), whereas the pH range for fens (4.3-7.3) barely extends into the basic range of the pH scale. Even rain water is typically acidic in Minnesota with a pH of about 5.0-5.6 (MPCA). Given the small size of the peatlands in the NorthMet site and the absence of any evidence that these peat deposits are mounded (with interior elevations higher than their margins) it appears that these peatlands are mostly poor fens (pH range of 4.3-4.8 and Ca concentrations of 3-8 mg/l) or even rich fens (pH 5.2-6.7).	WET09
6670	Even though the hydraulic conductivity of the peat can be several orders of magnitude higher in the near-surface peat (acrotelm) than in deeper layers (catotelm) there could still be significant lateral or vertical flow and solute transport within the deeper peat. The assumption of "perched" conditions needs to be verified by profiles of porewater chemistry and more detailed profiles for hydraulic head	WR120
6671	Vertical seepage losses from wetlands without peat soils would only have the potential to occur in isolated areas of contiguous, high hydraulic conductivity bedrock faults and fracture zones located under isolated areas of high hydraulic conductivity glacial till and aligned with wetlands containing high hydraulic conductivity soils (Barr 2010d; Barr 2011j).[What about wetlands underlain by sandy textured aquifers?]	WET10
6677	I have not seen any definitive evidence presented that true "ombrotrophic" raised bogs occur within the NorthMet site	WET09
6678	A pumping and isotope test conducted in 2006 indicated that the groundwater pumped during a 30-day pump test was derived from aquifer recharge rather than surface water seepage from surface water features such as the Northshore Mine Pit or wetlands. ... [What isotopes were used as tracers? Tritium? I would like to see their data if it is available].	RFI01
6681	Water levels in piezometers installed in unconfined aquifers should respond rapidly to precipitation events regardless of whether they are located in zones of recharge, discharge or lateral flow.]	WR021, WR071
6683	Evapotranspirational losses would be limited by the xeromorphic features of the conifer trees and ericaceous shrubs	WET24
6684	If the peatland has balsam fir and more than the occasional tamarack it is probably not a true ombrotrophic (raised) bog ... Northern white cedar never grows in a true raised bog! This species is a calciphile (calcium-loving plant) and is considered an indicator of an extremely rich fen in Minnesota; The so-called swamp birch ( <i>Betula pumila</i> var. <i>glandulifera</i> ?) is also a fen indicator species and never grows in the true raised bog ... This community seems typical of a fen	WET09
6685	There seems to be confusion regarding the relationship of ombrotrophic raised bogs to groundwater flow systems. Siegel and Glaser and their co-workers have repeatedly published direct evidence that raised bogs (in addition to fens) are directly connected to groundwater flow systems in the underlying mineral sediments both in large peat basins (Siegel & Glaser 1987, Siegel et al. 1995; Glaser et al. 1990, 1997; 2004ab, 2006) and smaller peatlands (McNamara et al 1992). These publications demonstrate that peatland development (to bog or fen) is determined by the local hydrogeologic setting rather than surface processes as suggested here (e.g. see Glaser et al 1997, 2004b, 2006). Ombrotrophic raised bogs can therefore be susceptible to alterations of groundwater flow and solute transport as was demonstrated in the Lost River bog-fen complex in northern Minnesota (Glaser et al 1990 but also see Siegel et al. 1995). In addition, this report does not provide direct evidence for the occurrence of ombrotrophic raised bogs within the NorthMet site. The EIS needs to specify that some peatlands at this site have the following features: 1) are in fact mounded (i.e. raised) 2) contain no fen indicators 3) have surface waters with a pH less than 4.2 and Ca less than 2 mg/l Otherwise a discerning reader might assume that the conifer bog class represents poor fens.	WET09

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6688	<i>Juncus stygius</i> is a fen indicator species and never occurs on an ombrotrophic bog. It is characteristic of poor-fens located around the marginal fringes of raised bogs and poor fen water tracks. (see Glaser 1992bc). It is widespread across the boreal region of North America but usually in very small and highly localized disjunct populations.	VEG01, VEG09
6689	These peatlands are clearly minerotrophic fens and not ombrotrophic bogs. Alders, swamp birch, catabils etc are fen indicator species and in fact alders are most abundant at peatland margins (laggs) or in non-peat wetlands. In addition: willows ( <i>Salix</i> ), marsh cinquefoil ( <i>Potentilla fruticosa</i> ?) are restricted to minerotrophic fens. Poor fens with high cover of <i>Sphagnum</i> are common across northern Minnesota and elsewhere.	WET09
6690	The description of the "conifer bog" class [on Tract 1] includes fen indicator species and therefore represents either a poor or rich fen forest or a mixture of a raised bog with the poor fen plant assemblages along its margins. The fen indicator species listed are alders, bog birch, catabils and other taxa ( <i>Iris</i> and raspberry). The presence of <i>Sphagnum</i> , black spruce and shrubs of the <i>Ericaceae</i> is not indicative of a raised bog because these species have broad ecological tolerances and can be dominants in both bogs and fens. The wording of this paragraph may be misleading since the aerial photograph of this area presented in Figure 4.3.2-1 (Tract 1 Hay Lake Lands) contains a wetland in sections #17 and 20 that has the radiating forest patterns typical of a raised bog that may have been burned in part. However this polygon is classified as conifer swamp in Figure 4.3.3-3. ... Figures 4.3.2-3 Tract 2 Lake County North Lands and Track 3 Wolf Lands 1. The landscape in this aerial photograph is marked by flutes (or drumlins) with wetlands in intervening flutes (sections 34, 35 and 3 and 2) However, the wetlands marked are probably swamp forests and not bogs. Fig 4.3.2-4 Wolf Lands 2 (looks like conifer swamp.....not a bog.	WET17
6697	How can an earlier section of the s EIS be so certain that fracture-flow through fractures, joints, or other discontinuities in the bedrock is not likely to be important within the study area? These data are suggestive that such features may affect the hydrology of the wetlands within the NorthMet site.	WR010
6705	Unless the bogs were in fact perched (which is probable but not supported by data included within this memorandum) they would still be connected to underlying groundwater flow systems and could be affected by drawdown.	WET09
6708	The NorthMet EIS does not provide reliable criteria for separating ombrotrophic bogs from minerotrophic fens. The key criteria for distinguishing bogs are a) landform type (surface elevations are always higher toward the interior of a peat deposit than at the peatland margins), b) the absence of fen indicator species, c) surface waters with a pH = 4.2 and Ca concentrations =2 mg/l. In contrast, several fen indicator species (e.g. alder, willow, bog birch etc) were listed as components of the "coniferous bog" type within the NorthMet site. The report seems to rely on high cover values for <i>Sphagnum</i> and black spruce, which can characterize poor fens as well as bogs. In addition, it should be kept in mind that most fens have acidic surface waters but fen waters consistently have a pH higher than 4.2 (typically 4.3-6.8 for poor to rich fens). If the authors of this report wish to lump raised bogs and poor fens within the same class they should say so explicitly and not make erroneous inferences about hydrology such as ombrotrophy. The scientific literature is very explicit about this matter and they can check some of the references at the end of this critique.	WET09
6712	Dust deposition could have potential impact on both ombrotrophic bogs and minerotrophic fens depending on the chemical and mineralogical composition of the dust.....either as acidifying agents (in fens) or by the supply of inorganic solutes and nutrients (bogs). Also, overland transport of solutes derived from dust is possible during the flush of spring snowmelt.	WET11
6723	This assumption would only be valid if the bogs in question were perched recharge mounds (which is not documented within this EIS). Otherwise ombrotrophic bogs would be connected to groundwater flow systems and responsive to transient and long-term changes in the hydrology of the watershed.	WET09
6732	What are multiple analog impact zones?	WET10

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6734	Groundwater drawdown would be expected to have a greater effect on smaller than larger wetlands.	WET10
6736	Another potential impact to consider is the effect of trace metals (e.g. Ni, Mb etc) on nitrogen fixation and methanogenesis since Ni and Mb are key components of the enzymes regulating the N and CH4 cycles in anoxic peat profiles!	AIR01
6740	over longer timescales (e.g. decades) the effect of solute transport could be significant. (e.g. see Siegel, D.I., A.S. Reeve, P.H. Glaser and E. Romanowicz. 1995. Climate-driven flushing of pore water in humified peat . Nature 374: 531-533)	REF01
6746	Figure 5.3.1-1 Tracts 1, 2 and 3 Roads Tract 1 - Hay Lake LandsThe northeastern boundary of this tract cuts across the crest of a well developed raised bog (=radiating forest patterns)	WET17
6761	The authors of this [Eggers 2011 memorandum] report did not consult the scientific literature on this important subject and therefore reached erroneous conclusions on both the criteria for distinguishing ombrotrophic (i.e. solely rain nourished) from minerotrophic (nourished by both rain and waters that have percolated through mineral soil) peatlands and the status of peatlands within the NorthMet site.	WET09
6763	In retrospect, the members of the wetland working group should have consulted the scientific literature on northern peatlands in Minnesota as well as the treatment of the acid peatland system in the Minnesota Department of Natural Resources (2003). Field Guide to the Native Plant Communities of Minnesota. The Laurentian Mixed Forest Province. Ecological Land Classification Program, Minnesota County Biological Program, MNDNR, Saint Paul,MN pp. 215-221. This treatment defines the pH range of raised bogs as less than 4.2 and also explicitly states that bogs are recognized by the absence of fen indicator species.	REF01, WET09
6768	Given the uncertainties with respect to sampling (with regard to both the vegetation and the water chemistry) I would strongly recommend re-doing the ground surveys using standardized procedures for both the vegetation and water chemistry) if the distinction between bogs and fens sensu stricto are important for the NorthMet EIS. At best, the occurrence of these fen indicator species and pH values well within the range typical of rich fens should raise red flags about the use of ombrotrophy in this [Eggers 2011 memorandum] report.	WET09
6780	It is important to consider whether the simplifications required in Goldsim are accurate and true to the hydrology of the site. ... They ignore the uncertainty that arises due to scale. ... The modeling therefore uses K values that are too small.	WR087, WR096, WR189
6787	This reviewer has reviewed many environmental documents for mining projects all over the country and somewhat globally and has never seen the [GoldSim] model used. To justify the claim of wide use, Polymet should provide an extensive list of mines on which Goldsim has been used to simulate contaminant transport.	WR189
6789	The [GoldSim] model fails the transparency requirement because it is proprietary and it is not possible to review or run the model without purchasing the model platform. Without this capability, it is not possible for the public to independently test Polymet's assumptions.	WR189
6793	most of Polymet's discussion does not distinguish among the hydrology and its Goldsim implementation. Polymet treats the bedrock as far more impermeable that it actually is, and that is based on their pump test data. ... Only three of the twelve observed Ks are less than the geometric mean, with one being just 0.01 ft/d less than it. Well P-1 was essentially dry, but the data resulted in a 0.0024 ft/d value which controlled the geometric mean and essentially drives discussion of bedrock being non-conductive.	WR168
6806	There is a need for better information regarding vertical gradients and the connection between the surficial and bedrock aquifers. ... For modeling, Polymet has not justified their assumptions of no connection among aquifers.	WR058, WR061, WR071, WR167

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6808	Polymet should model a scenario w/o continued discharge from PMP because it dilutes some constituents and causes some to have exceedences even without this project.	WR006
6809	Baseflow for the Partridge River may be incorrectly estimated. ... Polymet estimates river flow based on a distribution of monthly flows at SW006 as shown in Table 5---13 (p 127). A problem with this scheme is that it is a random selection by month without regard to the previous month. A dry month could follow a wet month, which is unrealistic. The model then distributes the SW006 flow to other evaluation points according to area draining to them and the year of mining.	WR003
6910	Recharge rates for the watershed have been underestimated. ... It is common to set recharge equal to river baseflow so the error comes in how baseflow is estimated. ... Polymet simply set baseflow equal to the lowest 30---day flow in this watershed. ... Myers (2014, Part 1) reestimated recharge for both Partridge and Embarrass River watershed and found that Polymet underestimated it by three to five times. ... The recharge rates should be reestimated considering the above and Myers (2014). Everything in the model that depends on the recharge rate should be reestimated, including the basic groundwater model used to estimate Goldsim parameters.	WR171, WR189
6913	Polymet should address whether there should be pathways north to the river. None of the model pathways discharge north even though there is a groundwater divide under the Cat 1 stockpile in pre-mining conditions.	WR071, WR089
6918	The flow calculations rely on an assumption that the surficial aquifer is 5-m thick rather than on reality that the piezometric surface along “an aquifer receiving recharge is parabolic in shape” (Id.). In other words, they have assumed constant thickness where in reality the thickness is not constant. Polymet also ignores the actual variability in thickness caused by the actual depth to bedrock ranging to almost 20 m, as seen in Large Figures 4 through 10.	WR058, WR167
6926	The GoldSim modeling also uses K values randomly chosen for each 1-d flow path; it is unclear whether there is a separate value for each flowpath during each simulation.	WR058, WR167
6928	GoldSim constructs flowpaths using adjacent cells and models the water balance simultaneously among each cell. It apparently utilizes one K for the entire flowpath. This assumption violates any realistic conceptual model of flow in the aquifers by ignoring heterogeneities. The K could vary along the flow path but the modeling as proposed here fails to account for that. If possible, the GoldSim modeling should use different K estimates for each cell but they should be selected with spatial correlation considered.	WR058, WR167
6929	The process of dispersion in the Goldsim model, by instantaneously spreading contaminant through a cell, differs from actual dispersion by which contaminants disperse continuously through the entire domain. If the time step used in Goldsim is significantly shorter than the time normally required for contaminant to disperse over that distance, it may be moving contaminant too quickly which would dilute the contaminant.	WR058
6930	the lateral and vertical dispersion is usually 0.2 and 0.1 times the longitudinal dispersion. This excessive horizontal dispersion dilutes the contaminant along its pathway more than would be estimated with standard transport equations (Fetter 1999). This would inappropriately dilute the estimated concentration for contaminants arriving at the monitoring points or the river.	WR058
6936	A necessary conclusion is that the assumptions about the engineering, geochemistry, the hydrology, and the geological conceptualization combine to provide predictions suggesting that the project will not degrade waters.	WR190
6940	Rather the model assumes that all water entering the stockpile during a year also exits it. ... By not considering storage, the model does not allow water to accumulate so that large amounts could seep all at once. ... the model also ignores the potential additional seepage that would occur during subsequent wet months. ... The assumption could limit the effect of high precipitation years, when leftover storage from the preceding year combines with infiltration during the current year to cause a larger of water reaching the liner or containment system.	WR173

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
6954	The method for modeling evapotranspiration (ET) from bare and reclaimed stockpiles does not appear to be correct). ... The better way to model this would be to select an ET proportion from the observations using the sample rather than population standard deviation.	WR175
6964	Polymet (2013) assumes that discharge into groundwater begins when the water level rises above the bedrock into the surficial aquifer. ... Polymet should complete a more realistic analysis of flow from the West Pit into the groundwater. ... Inflow to and from the pits should be determined as a function of depth using MODFLOW and then adjusted for uncertainty based on a probability distribution. The basis for this distribution should be described.	WR168, WR179
6966	most of the load simulated by Polymet to be in the lower river is already there, with the WWTF load representing only a few percent of the total load at SW006. The load simulated as contributed by the mine is on the order of tonnes per year or only a few percent of the natural load. River concentrations are very near the background groundwater concentrations which are shown below. Again this reflects the fact that natural conditions control the simulated concentrations in Polymet's modeling.	WR175
6974	The lack of mine-induced SO4 in the river occurs even though the mine adds very significant SO4 loads to the system. Considering the East Pit only, over 30,000 tonnes are added during year 11 from backfilling category 4 waste rock. By year 22, over 50,000 tonnes have been added just to the East Pit from various sources as shown in Figure I-01-24.1. This load obviously does not reach the river, so the question is where does it go?	WR060, WR150
6979	[PolyMet's] modeling assumes the caps will work perfectly, but it is important to question what must be done to make the assumption realistic. The addition of lime/limestone and proper mixing would have to occur during the initial backfill. Inadequate mixing could result in volumes of waste with much higher SO4 concentrations.	PD29, PD34, WR027, WR127
6986	[PolyMet's] estimated SO4 loading to the East Pit beyond year 20 does not include any WWTF return flow or a load from the backfilled waste rock (Figure I-01.24.2 below). This means they are accounting for no load from any water added to the pit to keep it saturated but they are assuming the pit remains saturated so there is no continued oxidation. It appears therefore that Polymet is missing two large components of load to the East Pit.	WR173
6992	Essentially, [PolyMet] assume and model that the combination of pumping from the WWTF and the percolation of meteoric water would counter the pumping of 1750 gpm and allow the backfill to remain saturated. Polymet presents no plan as to how this would work in practice even though it underpins their modeling.	WR173
6996	Myers (2014) simulated a pump and treat scenario for the East Pit and found that concentrations at various points in the backfill would be highly variable and in some areas would exceed the target even 100 years after the end of mining.	WR171
6998	Polymet appears to rely on the pit being a sink that prevents constituents from flowing into surrounding groundwater. Because they are keeping the pit full of water even while pumping from it, there may be gradients allowing flow from the pit to the surrounding groundwater. Polymet should describe at some place in the SDEIS how this would work in practice and consider what could happen if it does not work.	WR173
7006	Sorption as modeled by Polymet is the primary factor preventing Cu from reaching the river (Myers 2014). Polymet's model treats Cu sorption as deterministic, meaning they do not examine any scenario except for full sorption. They do not model any of the factors which could affect sorption, such as pH, contact time, or the relative particle surface areas. As found by Myers (2014), if sorption does not occur or occurs in a much smaller amount, Cu will reach the river at rates which could violate the standard. In addition to the engineering features, Polymet's assumed sorption essentially prevents any Cu from the mine from reaching the river. They have not justified that this will occur nor test what could occur if their assumptions are wrong.	WR058

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
7044	The model assumes that all waste rock covers, liners, and containment systems will work perfectly. The probability distributions do not account for substantial failures. If the seepage through one or more stockpiles is double that planned, there would be substantially higher load reaching the rivers.	WR127, WR138
7046	The model assumes sorption for four contaminants, including copper, which causes the model to predict that effectively none of the contaminant reaches the river. This sorption occurs even though the high background load continues to flow to and discharge into the river.	WR058
7048	The model assumes that plans to keep backfilled waste in the East Pit saturated during operations and to pump and treat it during reclamation will prevent all contaminants from escaping the pit and reaching the river. This is a very optimistic. Polymet should analyze a scenario which does not rely on this assumption.	WR029, WR089
7049	The modeling does not consider two loads to the East Pit – the load from pumping water from the WWTF to the pit to keep it saturated during reclamation and the load caused by oxidation of backfill if perfectly saturated conditions are not maintained.	WR173
7050	Pumping the West Pit full of water causes a mound which allows water and contaminant load to escape and flow from the pit to downgradient groundwater.	WR173
7053	The agencies should consider how the realistic modeling completed by Myers (2014) differed from Polymet’s and give particular consideration as to whether Polymet’s modeling was physically realistic. The agencies should further consider that Polymet’s modeling includes assumptions that prevent much of the transport that may actually occur. The agencies should ultimately reject the results of Polymet’s modeling and require them to complete more physically and conceptually realistic models	WR189
7060	West Pit Backfill was rejected without substantial argument or technical analysis because they claim it would not offer substantial environmental benefits (p 3-151). ... Recommendation: Polymet should give the West Pit backfill option a thorough evaluation with the Goldsim model so that there could be a comparison of concentrations with and without backfill.	ALT03
7071	They also note there are “additional mineral resources in the West Pit that would effectively be lost if the pit was” backfilled (p 3-149). ... Recommendation: Discuss the difficulties associated with pumping out a pit lake, and treating the water, to recover ore at the bottom of the pit. Consider these difficulties in discussion and decision as to whether to consider this as an option.	ALT03
7075	Polymet has not prepared a mining and reclamation plan (p 3-5), so the exact timing of activities must be considered imprecise; this applies in particular to the water quality modeling as presented throughout the SDEIS. Recommendation: Acknowledge that the times for various management activities during reclamation and closure are approximate because the reclamation plan has not been prepared.	PD09, PD35
7080	The conductivity values (Table 4.2.2-5) are provided in a not-useful way. Without knowing the number of samples, simply providing a range and a geometric mean is not meaningful. It would be better for the table to simply list all observations especially since they range over several orders of magnitude. ... The SDEIS overstates the roll of gouge in filling the faults in the areas (p 4-45). ... Recommendation: The analysis that relies on low permeability bedrock just under the till should be reconsidered and potentially redone. Additional fracture analysis should be completed to better consider the potential for fractures or faults being connected to more distant resources.	WR011, WR012, WR014, WR071, WR087, WR099, WR168
7091	Recommendation: Recalibrate the MODFLOW model based on higher recharge which would yield more realistic conductivity parameters (see comments elsewhere).	WR086, WR091, WR165
7096	The SDEIS claims there is very little transport in the bedrock flowpaths, primarily because of its “very low bulk conductivity” (p 5-53). ... Recommendation: Consider a much higher range of bedrock conductivity in the Goldsim modeling.	WR061, WR168

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7107	The description of how they determine the P90 value from a Goldsim run, described in the third paragraph of p 5-77, appears wrong. Recommendation: Describe the processing of model output to obtain the P90 value correctly.	WR192
7108	There is controversy over the estimate and use of baseflow on the two rivers draining the project site. ... It is not proper, however, to assume the 30-day low flow equals the average basinwide recharge in this watershed because it is not possible to assume the entire watershed is contributing during baseflow conditions. The baseflow may be recharge but only from a portion of the watershed. By setting recharge equal to the 30-day low flow, Polymet's recharge estimate was about 0.8 in/y, which is not correct because it is based on only a small portion of the watershed contributing baseflow. ... Recommendation: Polymet should reconsider their recharge estimate for modeling based on Myers (2014a and b) and recalibrate the MODFLOW model based on that correct recharge value.	WR003, WR052, WR086, WR091, WR165
7124	The predicted relative rates of groundwater inflow from bedrock and surficial aquifer (p 5-114) are based on very incomplete knowledge of conditions at depth which would control inflow from depth, including of saline groundwater. Recommendation: Polymet should establish a series of deep groundwater monitoring wells, screened at locations in the 500 feet below the pit bottom, to assess both changes in head and water quality. There should be continuous electrical conductivity monitoring so that salinity changes can be quickly detected.	WR007, WR071, WR078
7130	Recommendation: Reconsider the modeling of the surface water quality considering the comments in this review, Myers (2014 a and b), and the review documents prepared by Ann Maest, Glenn Miller, Dave Chambers, and Mike Malusis.	WR189
7137	Recommendation: The SDEIS should describe both the groundwater monitoring system and better describe how the contingency plans could actually work. They should demonstrate with their MODFLOW model that pumpback or other groundwater treatment can work. They should demonstrate using Goldsim that they can actually time the groundwater discharges to surface water so as they can actually increase the WWTF discharges for dilution.	WR139
7139	Surface water quality on the Embarrass River will change as a result of the project, though Polymet claims no standards will be violated. ... Recommendation: The SDEIS should discuss why the WWTP cannot treat the water so that degradation to the river will not occur.	WR064
7140	Recommendation: In cases where the natural background exceeds published standards, the project should not be permitted to cause any increase in concentrations or further degradation of the resource. This means any discharge (seepage) much have a lower concentration than natural so that the net effect is dilution.	WR059, WR064, WR082
7150	Polymet suggests it will stabilize in the West Pit Lake at 0.9 ng/l, or slightly below the standard. They indicate the load to the Embarrass River will increase due to seepage from the tailings but that reductions in the Partridge R will offset the increase for the St Louis watershed as a whole. They also claim that 92% of the Hg in the tails will remain there; this claim must be considered. Recommendation: Polymet should better justify the claim that 92% of the mercury will remain in the tails.	MERC06
7160	The SDEIS essentially argues that the MODFLOW--predicted drawdown is inaccurate (p 5-92). If that is correct, that drawdown estimates from MODFLOW are inaccurate, then dewatering estimates are also inaccurate. Recommendation: The SDEIS should acknowledge there is a large uncertainty in the estimated dewatering, and provide an estimated range of dewatering rates.	WR179
7162	Recommendation: The SDEIS should identify what the dewatering water will be used for or whether it will simply be discharged. Unless there is a water quality problem, the dewatering water should be reused onsite.	WR181
7165	Myers (2014) demonstrated that the groundwater discharge could be decreased much more than predicted in the SDEIS, therefore the predictions in the SDEIS are likely wrong. Recommendation: Use the MODFLOW model to predict decreases in the discharge to the river or to predict water drawn from the tributaries or wetlands which could reduce river flow.	WR086

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<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
7167	The SDEIS claims the analogue model was based on pit lake recovery measurements, not on actual dewatering results (p 5-92). This renders the results suspect so they should not be used in the SDEIS. Recommendation: The MODFLOW results for drawdown should be included in the SDEIS, either to supplement or replace the analogue discussion.	WR071, WR119, WR171, WR179
7171	Recommendation: Polymet should run their MODFLOW model in steady state mode with the water level in the pits controlled at the proposed levels. Polymet should also disclose in the SDEIS that maintaining the water level below the natural levels will require pumping/diversions from the pits essentially forever; this would include a requirement to treat the water.	WR105
7181	The description of the reduction in seepage to the Embarrass River watershed during closure is very misleading – it claims there will be a reduction from the estimated current rate of 2020 gpm to 1320 gpm but that since the groundwater containment system remains in place there will be only 21 gpm of seepage bypassing the containment (p 5-160). It is therefore inaccurate to claim that 1320 gpm will reach the watershed. Recommendation: Change the discussion of tailings seepage to acknowledge that the containment system prevents seepage from reaching the watershed.	WR018
7182	Recommendation: The SDEIS should describe the flow augmentation in Embarrass River better so that its effectiveness can be considered and the proposal can be assessed as to whether it will cause the wetlands to dry.	WR112, WR183
7196	The wetlands receive minimal runoff because the soil texture allows rapid infiltration, but the interaction between the surficial and bedrock aquifers is assumed to be insignificant (p 4-149). The SDEIS bases this idea on a reference to Siegel and Ericson, but their interpretation is wrong. ... These extensive fractures would enhance a connection between the bedrock and surficial aquifers, not render it insignificant. The SDEIS assumes there is little connection throughout, but is incorrect. See also Myers (2014a). ... The SDEIS suggests that wetland hydrology monitoring would be conducted only during the operations phase. This is not correct because pit lake development will draw water from the wetlands far beyond the end of dewatering. This applies whether the Polymet pumps the pit full, as described, or whether it fills naturally, as analyzed by Myers (2014a). ... The SDEIS has also not adequately considered the hydraulic connections between the wetlands and underlying aquifers. Recommendation: The agencies should require Polymet to install shallow piezometers near and at distance from the mine site to consider whether there is a layer separating the surface from the aquifers.	WET22
7217	Recommendation: Polymet should expand their probabilistic modeling to include results assuming the liners/containment systems work poorly. Instead of 99% capture, they should test what occurs with as little as 10% captured. Also, they should consider what occurs if the capture fails for a given time period; this would be the equivalent of considering what would occur if a significant slug of contaminants escapes for a reasonable time period.	WR022, WR202
7223	Recommendation: The modeling should include a flowpath north from the Cat 1 stockpile to the Partridge River. The flow path might be temporary, only existing early during operations and later during closure. Polymet should use their MODFLOW model to assess these time periods. See Myers (2014a).	WR089
7225	Recommendation: Transport from the tailings should be modeled with two potential failures. The first is that the cutoff wall and/or pump system does not perform as designed. The modeling should consider the potential for the pump system to fail temporarily. The second is that the bedrock underlying the tailings could have higher conductivity than assumed for this modeling.	WR019, WR104, WR131

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7229	SDEIS Figure 5.2.2-3 ... This is the wrong way of modeling the cutoff wall because the thickness of the model cell would control the conductance through the cell. ... The variable size of the DRAIN cells might also affect the modeled ability to remove water because the conductance could be set equal to the product of the long length of the cell and modeled conductivity, a value which could artificially increase the model's ability to remove water. Recommendation: The cutoff wall should be simulated using the horizontal flow barrier package in MODFLOW. The DRAIN cell conductance should be set specifically avoiding the potential problems outlined herein.	WR088, WR093, WR100
7230	Recommendation: The temporary stockpiles should be simulated assuming the liner performs poorly to set a bound on the potential contamination. The MODFLOW model should be used to test assumptions that seepage from the Cat 4 stockpile will flow to the East Pit.	WR022, WR171
7232	Recommendation: Polymet should run a scenario wherein the concentration caps do not apply, because they depend on the correct addition of amendments to control the pH in the pit. Adding amendments after backfilling is complete is very difficult.	WR033
7235	Recommendation: The SDEIS should compare the pros and cons of pumping the West Pit full with a clear explanation of why they are doing it. It could be considered an alternative mine plan.	ALT03, ALT04
7237	Recommendation: The SDEIS should include a discussion about how the water quality of temporary runoff ponds, such as pond PW-OSLA, will be monitored. This would include frequency of sampling and constituents to be sampled.	PD05
7241	Recommendation: Provide evidence in the form of peer-reviewed studies or other assurances that bentonite amendments and covers can prevent the entry of oxygen to underlying material. This should prove that it will work essentially in perpetuity since that is the claim being made by Polymet and relied on by the agencies.	WR057
7245	Recommendation: Polymet should redo the modeling to accurately account for flow among subareas and use the amended bottom seepage rates for inflow to the Goldsim modeling.	WR057
7252	The evaluation threshold for water quality has been chosen to be the P90 value, or 90% exceedence (p ES-35). This means that 90% of the simulated results were less than this value. However, the SDEIS describes it as there being "at least a 90 percent probability that a constituent would not exceed water quality evaluation criteria" (p 5-7). This requires the huge caveat that it applies only if all of the conceptualizations of flow and transport are accurate and all of the probability distributions are accurate. Recommendation: The SDEIS should not call the P90 value the value for which there is a 90% chance it will not be exceeded without adding "based on the assumption of the modeling".	WR192
7254	Recommendation: The agencies should require detailed monitoring of the water levels in the shallow aquifers to provide advance warning of any impacts as they are occurring or before they affect the water level on the surface.	PER17
7256	Flow changes due to the project could cause concentration evaluation criteria to be exceeded but the water quality modeling (Polymet 2013a and b) does not simulate changes in flows due to the project. Recommendation: If it is not being done, the concentration modeling should account for decreased flow in the river and streams.	WR047, WR148
7261	The assumptions are essentially the problem with this SDEIS. ... Very little consideration is given to what could occur when something goes significantly wrong, as it inevitably does. This SDEIS does not consider the full range of potential problems that could occur at this site, especially considering that the design features must operate as designed in perpetuity. It does not adequately disclose the potential range in water quality and water quantity impacts that could result from this project over the next 200 to 500 year and beyond.	PD01

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7432	While the sulfide content is not high in much of the waste rock, the buffering capacity is also very low and the release of metals and sulfuric acid will be substantial, as recognized in the SDEIS. Most of the mitigation measures rely on very large water collection and treatment processes that are unparalleled in modern mines. While the treatment technology (e.g. reverse osmosis treatment) has been shown to be effective in much smaller treatment facilities, it has not, to my knowledge, been utilized on such a grand scale and certainly not for centuries, as is projected in the SDEIS.	WR001, WR128, WR143
7437	Particularly for the East Pit, the plan to rinse and withdraw the expected highly contaminated water from the pore spaces in the waste rock is untested, and very likely to fail due to the extreme difficulty of efficiently rinsing rock that has been added to the pit.	WR171, WR173
7451	Both from the refilled East Pit and the West Pit Lake, sulfate and metals loading is very likely to exceed the groundwater standards of the State of Minnesota. This plume of contaminated water will migrate long distances and potentially be a source of contamination to groundwater and surface water for centuries.	WR107, WR109, WR115
7453	Also, as discussed by others (see the Maest comments), the water from the East Pit will almost certainly contain large amounts of nitrate and ammonia from the blasting activities from residues of ANFO(ammonium nitrate-fuel oil). Removal of these substances is largely untested.	WR013, WR032
7472	The water quality in the ultimate West Pit Lake is estimated to contain 800 mg/L sulfate (range of 500-1200 mg/L). The basis for this estimate is on rinsing of wall rock that has been exposed to air. The actual concentration is likely to be considerably higher, and is likely to approach gypsum (calcium sulfate) saturation (probably supersaturation), similar to what is found in almost all pit lakes in Nevada. Concentrations of sulfate can vary from about 500 mg/L to over 3000 mg/L, depending on conditions at the specific site (see attached Nevada Division of Environmental Protection file in Appendix 1 that provides limited data on some of the Nevada pit lakes).	WR141
7473	Modeling of pit lake water quality has typically assumed that sulfate will come from wall rock oxidation very near the surface of the pit lake, as is apparently the case for the West and East pits. This so-called “rind” model neglects what actually happens when a cone of depression is created as water is pumped (or flows into the pit) to lower the groundwater table to the bottom of the pit. The water is replaced by air that is brought into the cone of depression created by removal of water; the result is oxidation of sulfides that are present in the large volume of rock distant from the actual pit faces. Concentrations of sulfate present in the water draining into the pit are effectively impossible to predict, since there have been no estimates made of sulfides in the rock surrounding the pit that will exist in the dewatered cone of depression.	WR173
7475	This issue is fundamentally important to both the refilled East Pit and the West Pit Lake. If sulfate concentrations are much higher than predicted, the water treatment requirements and sludge production will be much higher than expected and the cost requirements (via bonding and long-term treatment expectations) also much higher.	WR176
7483	A second aspect of this type of oxidation is that sulfate concentrations will be elevated far into the future, since rinsing of those surfaces will continue until the entire cone of depression is rinsed, and would include any gypsum that may have precipitated in the aerated pores where sulfides had been oxidized, and the solid gypsum redissolved. Thus, the concentration of sulfate in the pit lakes remains highly uncertain, although they are likely to be much higher than the concentrations predicted. No discussion of this source of sulfate and contaminants was presented.	WR001
7484	This same type of Monte Carlo simulations have been completed for many mines in Nevada, but are still wrong by sometimes over an order of magnitude, primarily a result of utilizing an incorrect basic conceptual model. I believe that this is the case for the East and West pits of the Polymet mine.	WR088
7491	Removal and treatment of water at a rate of 300 gal/min thus is unlikely to result in sufficient dilution of the contaminants (particularly sulfate) for a much longer period than predicted. Instead of 200 years to dilute the pit lake to approximately 35 mg/L (Fig. 6-61 in the Water Modeling Data Package – Mine Site), the time frame could be much longer, and prolong treatment for additional centuries.	WR035, WR037

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7492	The water treatment plan has the term “adaptive management” in several sections, and the data on which to base adaptive management decisions should involve groundwater monitoring at various distances down gradient from the East and West pits. For example groundwater monitoring wells should be established 5, 20 and 100 meters from the expected groundwater flow path.	PD22
7510	The SDEIS should thoroughly evaluate the alternative of putting all of the Category 1 Waste material into the East Pit, or potentially, the West pit, or a combination of the various pits. Leaving the reactive rock on the surface provides an in perpetuity water treatment requirement, and a very likely long term management problem when the plastic liners degrade.	ALT13
7520	The arguments that it will increase water treatment needs if deposited in the East Pit (section 3.2.3 in the SDEIS) and the remaining rock in the West Pit have some level of validity; however, once the Category 1 waste material is submerged, oxidation processes will largely stop, and the water treatment required for the East Pit will be temporarily increased, but over the long term (centuries) the water treatment requirements will be much less, and limit the threat that reactive rock drainage will have on surface and groundwater.	WR035
7534	Treating a huge volume of water to discharge standards using membrane processes is more expensive than moving the previously mined rock out of a pit by conventional methods. In fact, removing of a rock-filled pit is probably more likely than pumping and treating a pit lake full of water.	ALT03
7562	Bonding and long-term water treatment estimates are major environmental issues. No estimates of bonding for reclamation and long-term water treatment and management were provided, and this is a major deficit of the analysis presented in the DSEIS. ... Thus, those discussions on the long-term closure costs should have been part of the environmental analysis. These should include the costs for long-term treatment, the cost of repairing the covering on the Category 1 Stockpile (if not put back in the pits), and the replacement/upgrading of the various water treatment facilities every 50-75 years. The discount rate(s) to be used for the estimate of treatment funds should also be included, since the ultimate water treatment and management of the facility will directly depend on the funds that are generated and available in the centuries ahead, assuming that a functioning society still exists.	FIN05, FIN08, FIN13
7574	any passive biological system can[not] reliably allow a walk away solution from any site, for two reasons. First, biological treatment is highly variable, depending on a variety of conditions, including temperature, flow, contaminant load, and treatment objectives. Second, while sulfate concentrations can be reduced, I am not aware of any single passive (no pumping or added reagents) system that is sustainable over the long term. These systems may start out working well, but the treatment efficacy drops off after weeks to months of operating. The available organic reducing sources are simply consumed, and those systems plug rapidly with metal sulfides and microbial mass. The plugging is observed in effectively every completely passive biological system of which I am aware. None of these systems that I have observed can reduce sulfate to under 30 mg/L.	WR137
7581	some of the treated water [from the WWTF] will be used to flood the pits to reduce further sulfide oxidation. This treated water will come from a variety of sources, including the east pit water that has rinsed off acids and metals from the oxidized rock. Thus, it is likely that the sulfate loadings will generally be above 2000 mg/L and potentially much higher. ... I was unable to locate any data that indicated that sulfate could be reduced from 2000-3000 mg/L to 250 mg/L using this approach. I seriously doubt that sulfate can be reduced by this amount, and in the absence of any scalable data for a continuous process, the MDNR should assume that it cannot. ... So how is the water in the East Pit going to be treated during mining of the West Pit, and how much will be treated during the latter half of mining the West Pit? ... The contaminant load in the water in the East Pit will be very high, and a portion of this water is likely to penetrate the pit wall surface and be delivered to groundwater	WR147

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7587	Essentially no mention is made (at least that I could find) of where the thousands of tons of precipitated sludge will be deposited, other than it will be moved offsite. This is a serious deficiency of the SDEIS, since the precipitated sludge is a major component of the water treatment process, and this sludge contains contaminants that are water soluble and will readily leach in the Minnesota climate. At a minimum, the following questions should be answered? a. What is the expected contaminant load in the waste? While this will vary, depending on the type of sludge that is generated, some general description should be required for each type of waste transported off site. b. What is the legal characterization of the waste - will it be accepted by municipal waste repositories? c. How much will be generated each year, and what is the total amount expected over the long-term? d. How will it be transported? e. What specific sites will accept the waste? What is their capacity and what are the design characteristics of those facilities? Are there agreements in place at sites that will accept the sludge waste?	WR145
7595	While [chloride is] not particularly toxic, it will increase the total dissolved solids concentration, and with sulfate (and the associated cation) combined together will present a total dissolved solids concentration that is potentially greater than 300 mg/L. How is chloride being used (calcium chloride or hydrochloric acid) and can it be eliminated?	WR002
7607	Rinsing the East Pit refilled pit is going to be a major problem. To my knowledge, a refilled pit has never been completely rinsed, and will threaten groundwater from the initial period when waste rock is submerged in the East Pit, but even more so when the groundwater table rebounds and the hydrologic gradient towards groundwater is re-established. If water is removed from the base of the refilled pit, treated and released back into the refilled pit, this will indeed reduce concentrations. However, the expectation that the sulfate concentrations will be reduced to less than 250 mg/L is overly optimistic. ... At the least, a thorough monitoring plan should be developed that requires collection of water samples at various distances from the refilled pit and at regular time intervals. If the rinsing is unsuccessful, as I expect, and contaminants exceed maximum allowed concentrations, how will the MDNR respond to this groundwater degradation?	WR090, WR147, WR173
7610	While the water collected during the period when the pit is deepened and water pumped to maintain a dry pit, the reference to how the water will be collected is unclear. ... If the pit dewatering calculations are incorrect, the volume of water needed to be removed could substantially exceed the capacity of the needs for mining and milling, and would need to be discharged. Sulfate, ammonia and nitrate (as well as other contaminants) could be in higher concentrations than the discharge limits and exceed the capacity of the treatment system to handle the contaminated water. While this possibility is admittedly speculative, the volumes of water that will be pumped appear low, and if the dewatering rate is 2-3 times higher, the water treatment, as proposed, will not be sufficient to manage this water, as well as the volumes indicated in the SDEIS.	WR147, WR176, WR179
7760	Three methods yielded substantially different annual recharge estimates for the study area. Reconstruction of baseflow yielded 7 and 12 cm/y for the Partridge and Embarrass River watershed, respectively. Regional regression yielded the highest values ranging from 24.2 to 30.3 cm/y for the area. The water table fluctuation method yielded about 23 cm/y. Polymet had estimated basinwide (for the Partridge River watershed) recharge to be just over 2 cm/y (Polymet 2013a) or 1.7 cm/y (Barr 2008b) primarily based on the average annual 30-day low flow at the Partridge River above Hoyt Lakes gage for the entire watershed. Barr (2012) broke it down further to 4.6 cm/y for till and 0.9 cm/y for wetland areas, although their maps do not show where they applied these values. The much higher recharge estimates completed herein using three different methods indicates that the recharge estimated by Polymet is too low. Polymet's error was to assume that the entire 67,000 acre basin would be contributing recharge to baseflow during low flow periods at the end of the winter season.	WR003, WR052, WR062, WR165

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7781	The purpose of this [numerical flow] modeling effort is to provide a different independent assessment of flow and transport in the area. It provides an alternative explanation to the modeling proposed by Polymet. In addition to the differences caused by recharge rates, this model differs from those of Polymet by including both the mine site and plant site and the two watersheds in which they lie, the Partridge River and Embarrass River (Figure 1). At the plant site, the model includes estimated seepage from the tailings impoundment. At the mine site, the model simulates pit development including dewatering, backfill, and pit lake development under two scenarios, natural pit lake filling and induced pumpage. ... The strategy is to develop a numerical model that accurately represents the flow and transport through the system and compare the conceptualization with Polymet's. Additionally, this model is used to test the effect of varying Polymet's parameter and seepage assumptions.	WR062, WR171
7803	The final SSR was slightly higher than 330, so the MODFLOW-2000 automated calibration decreased the variation by about 13 percent. The mean residual was essentially zero and the scaled standard deviation and absolute mean were 0.04 and 0.03 of the head range of 53.97 m (Table 3 [see full comment letter]). The means by layer cluster near zero. The only tendency observed in the residuals is a slight tendency for the observed groundwater levels to be higher than simulated at higher elevations for all model layers (Figure 12). The simulated groundwater levels and potentiometric surfaces reflect that groundwater flows away from the ridges toward the river discharge points, as expected (Figures 13 through 15 for layers 1 through 3, respectively). There is no obvious spatial trend in the residuals except for a slight under prediction of groundwater level near the Partridge River in layer 1 east of the mine site (Figures 12 through 15). This may have been due to the river being several meters lower than the nearby ground surface.	WR062, WR171
7813	One reason that calibrated K values (Table 2 [see full comment letter]) increased from their starting values could be scale. Model cells represent a much large volume than the pump or core tests used for some of the cited estimates (Schulz-Makuch et al. 1999). A cell would represent a full range of fractures which pass the majority of flow in fractured bedrock. Studies have consistently shown that model parameters can be up to several orders of magnitude higher than other estimates (Schulze-Makuch et al. 1999; Garven 1995; Bredehoeft et al. 1992).	WR062, WR087, WR099, WR171
7838	The model achieved water balance with outflow, to DRAINS and the GHB, being within 0.0026% of the inflow, all of which is by recharge. The discharge from the Embarrass River watershed was about 2% higher than the recharge to that basin because the calibrated groundwater divide was a small distance south of the topographic divide which diverted a small amount of recharge from the Partridge watershed. The Partridge and South Partridge River (reaches 5 and 6) received most of the discharge from the Partridge River watershed (Figure 16 [see full comment letter]) and the Embarrass River (reach 10) had most discharge from that watershed.	WR062, WR171
7946	[The groundwater flow model's] substantive differences with the Polymet modeling are primarily the higher recharge which led to higher bedrock conductivity estimates. The transient calibration used in this model development, but not Polymet's, estimated storage coefficients to be significantly lower than had been used by Polymet. Lower storage coefficients mean that less water will be released for a given change in groundwater levels. If the project involved pumping a set amount, this model would predict more drawdown and more distant impacts. Because the goal of dewatering is to lower the groundwater level to a target level, this model will predict that less water would be removed than as simulated by Polymet. However, the higher bedrock conductivity will draw water from further away thereby expanding a zone of impacts. This could increase the reach from which groundwater discharge to the river will be decreased, thereby increasing the impacts on the river. The higher bedrock conductivity and higher recharge could cause a higher contaminant load to reach the rivers especially through advection. However, higher recharge could dilute the contaminants so that exceedences are rarer. Because of the complexities of the mine site development, it is not possible to have more specific expectations of the differing parameters will affect the model results.	WR062, WR086, WR171
8135	Much of the discharge lost to the [Partridge] river apparently occurs south of the minesite. The recovery (Figure 14 [see full comment letter]) occurs along the path of natural groundwater flow, which is also followed by the contaminants as will be discussed in the next section. The pit naturally begins to overflow, as described above, at about year 87 (from the start of mining, at rim elevation c 480 m amsl) (Figure 12). A long-term surface outflow occurs in about 8 years (year 95 from the start of mining).	WR062, WR086, WR171

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8152	The amount of discharge from the pit lake into bedrock is significant equaling about two-fifths of the flow into the bedrock to the south and about four-fifths of the flow into the bedrock to the west. This reflects the higher bedrock conductivity discussed in Part 1 and calibrated in Part 2 and also indicates that Polymet’s (2013c) assumption of extremely low bedrock conductivity may have biased the bedrock flow estimate.	WR009
8165	Variable nearby sources and sinks as found near the mine site complicate the solving of the transport equation. It specifically can cause numerical dispersion and oscillations which can cause the concentration in areas to actually go negative, a physical impossibility (Konikow 2011, Herrera and Valocchi 2006). This does not cause problems with mass balance and the results remain accurate (meaning the solution is not affected by the negative concentrations) away from the affected areas (Konikow 2011), but the simulation of negative concentrations is disconcerting. The primary means of eliminating the problem is to decrease concentration time steps or change the dispersion coefficient.	WR171
8226	There are two primary differences between the modeling completed herein and the proposed project and modeling of that project (Polymet 2013c). First, this model does not simulate the cap on the concentrations which could result if Polymet adequately controls the pH in the East Pit. ... The simulated concentration in the East Pit exceeds Polymet’s cap by two to three orders of magnitude (Figure 32) but should be considered representative of the SO4 modeled as stored in the pit and not an actual concentration that could be measured in the field. ... Second, this model does not simulate pumping from the East Pit which probably allows the overall load in the system to reach the river as in Figure 44. The results should possibly be considered what would happen if Polymet does not actually pump back from the East Pit for up to 38 years (Polymet 2013c) or if it is only marginally effective.	WR171, WR173
8341	The simulations of seepage from the tailings impoundment demonstrate why Polymet (2013d) predicts there will be no increases in load to the Embarrass River caused by their project. Their modeling assumes that their engineering will reduce seepage rates from 1 to 10% of the existing rate. Comparison of the 1/10th and 1/100th seepage rates with the full seepage rate demonstrates just how much less load enters the environment with these assumptions. Assuming that sorption occurs decreases the load to the environment even more. If the seepage controls fail in anyway, the load reaching the river would likely be much higher.	WR018, WR129
8343	The simplistic modeling completed by Polymet (2013d) ignores important transport properties by basing transport through deeper layers only on the lower flow rates. Dispersion into deeper layers will increase the concentrations so that the load flowing toward the river will increase.	WR010
8345	Groundwater levels downgradient from the tails are reduced because of the decreased seepage and will likely negatively affect wetlands.	WR056, WR093
8378	The primary conceptualization difference is the estimated recharge being higher than estimated by Polymet as described in Part 1. Higher recharge rates lead to higher conductivity values as described in Part 2. This model was calibrated to a given rate (Part 2) which cannot be tested in long-term simulations because either extensive drawdown or mounding would result and make the results unrealistic and render any comparison not useful. Qualitatively, higher conductivity allows flow and contaminants to pass faster, the effects of drawdown to spread further, an increased connectivity between surficial and bedrock aquifers, and more dewatering effects on the rivers and possibly the wetlands.	WR003, WR062, WR171
8386	The dewatering predicted by the model developed herein is about twice that predicted by Polymet due to the higher recharge and conductivity. ... This model simulates more dewatering effects on the river because it simulates more of a connection between bedrock and surficial aquifer, based on their being more recharge flowing through the system. ... Based on the simulation herein, the Partridge River reach above the confluence with the S Partridge River is most at risk from dewatering and that risk continues for years during reclamation and closure if the pit refills naturally. Pumping the pit full (the “with pumping” scenario) allows the discharge to the river to return to pre-mining rates within about 10 years, when the pit is full.	WR171

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8388	A potentially larger difference in flow paths is the delineation between the surficial and bedrock aquifers. Polymet treats them as completely separate but the transport modeling herein allows constituents to disperse vertically among layers because the bedrock herein is more conductive. Groundwater and contaminants may be simulated herein to flow more rapidly and at a higher flux through bedrock that estimated by Polymet.	WR168, WR171
8395	The plume moving north and west from the tails [in the author's model] disperses horizontally more widely than allowed in the Polymet modeling.	WR062, WR171
8396	The general differences between concentrations simulated herein and in the Polymet model are that herein groundwater reaching the river has concentrations that exceed standards after 60 or 80 years whereas Polymet's simulations of SO4 and copper is mostly a horizontal line meaning the project would cause no significant effects.	WR171
8398	Polymet relies on perfect engineering to limit the seepage rates through three waste stockpiles, an ore surge pile, and the tailings impoundment. ... Polymet must also pump from the East Pit and treat all of the porewater that has high constituent concentrations; they must prevent essentially all of it from escaping. ... While pumping this water, they claim they will keep the backfill submerged to prevent further oxidation. Considering that the required pumpage vastly exceeds the rate required to dewater the pit, this seems infeasible. ... Polymet assumes it can work without even presenting a design or model.	WR128, WR173
8400	The simulations showed that SO4 concentrations in portions of the pit did not reach the target for 110 years after the cessation of operations. The efficacy of this pump and treat plan is critical to Polymet's overall project plans but the modeling and discussion herein indicate it will probably not work.	WR089, WR128, WR173
8402	Another major assumption regarding copper (and three other constituents), Polymet assumes that sorption will occur. This essentially prevents all copper loading in the groundwater from reaching the river. Without sorption, as shown above, copper will exceed standards within 60 to 80 years depending on the pit recovery.	WR058, WR167
8406	Polymet's plan to pump water into the West Pit to hasten pit lake recovery causes major differences with a natural pit recovery scheme. Pumping has the effect of changing gradients which cause contaminant loads to reach the river more quickly. Pumping also adds very significant loads to the groundwater system on the west end of the mine site for SO4 (and is the primary source of load for many other constituents because the bulk of the water is from the tailings impoundment). If their many modeling assumptions do not fully manifest or their engineering designs do not work as well as expected, as modeled herein, this load will reach the river and cause the project to exceed many standards.	WR173, WR177
8648	No commitments are made regarding the nature of the soil materials that will comprise the [groundwater containment system] wall, and no details are provided regarding the proposed construction method, other than that the soil material will be compacted.	PD04
8650	it is unclear whether or not a geosynthetic barrier will be used in the [groundwater containment system] wall and, if so, what type of geosynthetic barrier will be used and whether or not the geosynthetic barrier will be used in conjunction with soil (i.e., a composite barrier).	PD04
8651	The absence of such commitments [in the groundwater containment system] and details is problematic, as the options proposed are not commonly employed for long-term containment of contaminated groundwater and do not have a strong track record of success in these applications. The materials and construction method need to be specified and thoroughly described.	PD04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
8653	the phrase "geosynthetic clay barrier" is used in the SDEIS, implying that this barrier would be a geosynthetic clay liner (GCL) rather than a conventional geomembrane. However, there is no readily available evidence in the literature indicating that geosynthetic barriers other than geomembranes have been used in vertical barriers. Also, research indicates that walls containing a geomembrane alone (as opposed to a composite wall containing a geomembrane and a low-permeability, soil-bentonite backfill) are not likely to be effective for controlling underseepage, even if the geomembrane is placed in direct contact with the confining unit at the bottom of the aquifer	PD07, PD15
8654	Compelling evidence needs to be provided that demonstrates the viability of a compacted soil or geosynthetic wall in lieu of the widely used and well proven soil-bentonite slurry trench method. This demonstration should include valid references/web links to relevant case studies and must address the following construction issues: (a) how trench stability will be maintained during construction; (b) how the soil material will be processed and placed to ensure that the wall is homogeneous, meets the design hydraulic conductivity, and is free of high-permeability defects; and (c) how the geosynthetic barrier (presumably a geomembrane), if used, would be installed to ensure the integrity of the panels/interlocks and adequate control of underseepage.	PD07
8658	The maximum allowable hydraulic conductivity of 10-5 cm/s for the cutoff wall is 10 to 100 times higher than the typical hydraulic conductivity requirement for vertical barriers used in long-term hydraulic control or geoenvironmental containment applications (10-6 to 10-7 cm/s...). If constructed at 10-5 cm/s, the wall likely would be ineffective as a long-term barrier unless a sufficient inward head difference is maintained continuously to prevent outward advective transport and adequately reduce outward diffusive flux of miscible contaminants in the groundwater.	PD07, PD15
8660	there does not appear to be a commitment to maintaining a particular minimum gradient at all locations along the wall, and the cross-sectional schematics ... indicate that an inward gradient will not be maintained on the south side of the stockpile adjacent to the West Pit. The model simulations also do not appear to consider the possibility that the efficiency of the groundwater collection system could be diminished over time	PD15, WR021, WR133
8662	PolyMet should commit to maintaining a particular magnitude of inward gradient or head difference across the wall, to ensure that the containment system functions as intended based on consideration of both advection and diffusion as viable transport mechanisms for contaminants leached from the waste rock.	PD15, WR021
8663	a soil-bentonite slurry wall, with a maximum hydraulic conductivity no greater than 10-6 cm/s, should be employed for this containment system (as appears to be the case for the vertical barrier to be employed around the tailings basin). A maximum hydraulic conductivity of 10-6 cm/s is a reasonable design criterion for a soil-bentonite backfill, as backfill hydraulic conductivities of 10-6 to 10-8 cm/s are easily achievable for a wide range of native soil compositions.	PD07
8671	The groundwater modeling assumes that no groundwater from outside the containment area will be captured by the containment system ... However, there is no indication in the text of the SDEIS or other project documents that the wall will be keyed into the underlying bedrock. Likewise, schematics showing the conceptual cross section of the containment system (i.e., Figures 3.2-11 and 3.2-16 in the SDEIS ...) indicate that the wall will not be keyed into the bedrock, but rather will terminate at the top of the bedrock.	WR019
8676	The key is one of the most important aspects of cutoff wall design, and specifications generally call for a minimum depth of key (typically 3 ft, or deeper in fractured bedrock) into the lower confining bed to ensure an adequate seal that minimizes underseepage ... Without a proper key, significant underseepage could occur, either into the containment area or out of the containment area (i.e., at locations where an inward gradient is not maintained). The text and schematics should be revised to reflect an appropriate minimum depth of the key into the bedrock.	PD07, WR019
8677	Although the minimum required thickness of the cutoff wall is not explicitly stated in the text of the SDEIS, the groundwater flow model assumes a wall thickness of five feet. Therefore, the thickness of the constructed wall should be at least five feet. Please confirm.	PD16

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
8678	According to the Adaptive Water Management Plan ... a minimum surface slope of 1.0 % is proposed for the final cover system. The justification provided for such a flat slope is insufficient. ... The surface slope must be sufficient to promote runoff and minimize ponding of water on the cover surface, thereby minimizing infiltration.	PD04
8679	It is unlikely that a loosely compacted vegetation layer can be sloped uniformly at 1 % without creating areas where ponding will occur. Indeed, solid waste landfill covers typically are designed to have a minimum inclination of 2 to 5 %, after accounting for settlement ..., to promote runoff and minimize ponding ... Based on this consideration, the minimum cover slope should be at least 2 %.	PD04
8680	Also, monitoring and maintenance provisions should be included in the closure plan to repair localized areas of grade reversal or subsidence.	PD09, PD35
8683	PolyMet should commit to (a) maintaining a particular magnitude of inward gradient or head difference across the [TB groundwater containment system] wall, to ensure that the containment system functions as intended based on consideration of both advection and diffusion as viable transport mechanisms for contaminants released from the tailings, and (b) establishing a minimum depth of the key into the underlying bedrock. Regarding the latter, there is a mention in the SDEIS that the wall will be keyed into bedrock, but the minimum depth of the key is not specified. Also, schematics in the SDEIS and ... indicate that the wall will be constructed to the top of the bedrock, but will not penetrate into the bedrock.	PD07, WR019, WR021
8684	According to Attachment C of [Water Management Plan - Plant], a thickness of one foot was specified for the slurry wall in the groundwater flow model simulations. While a thickness of one foot is conservative from a modeling standpoint, a wall this thin will be too difficult to construct and backfill properly	PD08, WR019
8686	Thus, in addition to being imprudent from a technical standpoint, construction of a 1-ft-thick wall likely would not result in significant cost savings relative to a 3-ft-thick wall. As such, a wall thickness of three feet is highly recommended, which would be consistent with conventional practice and provide a factor of safety from a groundwater flow perspective.	PD07, WR019
8688	There appear to be inconsistencies between the SDEIS and [Flotation Tailings Management Plan] regarding the thickness and embedded depth of the bentonite-amended layers to be installed on the dam raises. According to page 5-162 of the SDEIS, PolyMet proposes to cover the embankments with a 12-inch-thick bentonite-amended soil layer, followed by an 18-inch-thick vegetated soil cover. However, page 33 of [Flotation Tailings Management Plan] states that the bentonite-amended layer will be 18 inches thick and overlain by a 30-inch vegetated layer. These differences need to be resolved.	PD07
8690	The design criteria for the bentonite-amended layers need to be defined. For example, what design hydraulic conductivity and moisture retention characteristics will be required for these layers to function effectively as oxygen and water infiltration barriers?	PD07
8691	The likelihood that a uniform barrier with low hydraulic conductivity could be created by amending predominantly coarse tailings with only 3 % granular bentonite is small, as many of the flow paths within the barrier will likely be devoid of bentonite. ... Bench-scale tests need to be performed using materials with gradations representative of those anticipated for the bentonite-amended layers to determine the percentage of bentonite required to meet the relevant design criteria	PD07
8694	On page 5-162 of the SDEIS, the text states that the objective of the two-layer cover systems is to maintain the bentonite-amended layer at or above 90 percent saturation so that the layer would operate as an effective oxygen barrier. However, no evidence is presented in [Flotation Tailings Management Plan] to show that a saturation = 90% would be maintained in this layer over the long term. Unsaturated flow modeling is needed to evaluate the potential for changes in saturation of the bentonite-amended layers over time.	PD07, PD08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
8696	In addition to evaluating the potential for loss of saturation, PolyMet needs to address the potential for the hydraulic and moisture retention properties of the bentonite-amended soil layers to change over time due to development of soil structure caused by wet-dry cycling and other pedogenic processes, most notably freeze-thaw cycling and plant root penetration. Root penetration likely will occur after some period of time, and there is no evidence provided to support the suggestion by PolyMet in [Flotation Tailings Management Plan] that adding 3 % granular bentonite will provide adequate protection against root penetration. Likewise, there is no evidence provided to indicate that an 18-inch (or even 30-inch) vegetated layer will provide adequate protection against freeze-thaw cycling.	PD08
8697	What field performance benchmarks and associated monitoring methods will be employed to demonstrate that the bentonite-amended layers function as intended over time?	PD09
8700	Three possible methods are proposed for creating a bentonite seal at the bottom of the tailings pond, viz. (1) subaqueous broadcasting of bentonite pellets or bentonite-coated sand; (2) in-situ mixing (with bentonite injection) from a barge; and (3) subaqueous placement of a GCL. ... these proposed options are, at best, experimental. Although it is noted that PolyMet proposes a field demonstration to prove the efficacy of the chosen method, case-study evidence should be provided to indicate that these methods (particularly the broadcasting and in-situ mixing methods) have been implemented successfully on similar projects.	PD07
8702	PolyMet should explain why alternatives that involve draining the pond prior to installation of the bottom seal are not being considered as potentially more prudent options relative to the subaqueous installation methods.	ALT10, ALT13
8704	The GCL hydraulic conductivity reported by the manufacturer should not be assumed to be representative of the field hydraulic conductivity. If a GCL is to be placed on the tailings pond bottom, the selected GCL should be subjected to laboratory testing (ASTM D6766) with the pond water to determine the expected hydraulic conductivity in the field. Likewise, the hydraulic conductivity of a broadcast bentonite layer or in-situ mixed bentonite layer to the pond water should be verified by laboratory or field testing.	PD07
8710	The values of compression index (Cc) and swell index (Cs) for the LTVSMC tailings, peat, and residue that were used to determine the analogous parameters ? and ? for the MCC model do not appear to have been reported in the SDEIS or the relevant data package [Geotechnical Data Package – Vol 2]. Please report these values along with the calculations producing the values of ? and ? for these materials as given in Table 4.2 of [Geotechnical Data Package – Vol 2]. The values ? = 0.05 and ? = 0.01 seem too low for fine tailings and slimes.	GT13
8714	According to the SDEIS and [Geotechnical Data Package – Vol 2], the settlement analysis for the subgrade yielded a maximum strain of 0.20 % in the liner system. However, the LTVSMC tailings appear to have been modeled in the settlement analysis as homogeneous, with a single value of ? and ? used in the analysis for the tailings and slimes. The assumption of homogeneity needs to be further justified. While this assumption may yield conservative estimates of total settlement, it is not clear that this approach would yield conservative values of differential settlement and strain in the geosynthetic layers.	GT11, GT12
8722	Consolidation test results for the LTVSMC tailings do not appear to have been included in [Geotechnical Data Package – Vol 2]. How many consolidation tests have been performed on the tailings/slimes? Have multiple consolidation tests been performed on samples collected at various locations and depths within the footprint of the proposed disposal facility? If so, how much variability in the compressibility parameters is evident? Have any analyses been performed to demonstrate that material variability in the tailings does not lead to greater differential settlement and strain in the liner?	GT11, GT12
8724	The potential for spreading and separation of the GCL panel overlaps due to the anticipated settlement of the subgrade and elongation of the liner needs to be addressed in the geotechnical analysis.	GT10, GT12

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
8727	The computed factors of safety presented in the SDEIS for slope stability along the interfaces of the various liner system components for the HRF (Table 5.2.14-5, page 5-576) are based on values of interface friction angle reported in the literature. Citations and references for the sources in which these values are reported should be provided.	GT12
8730	Also, although PolyMet proposes project-specific interface shear testing if the anticipated material types change, geosynthetic-geosynthetic and geosynthetic-soil interface friction angles vary among different geosynthetic products of the same type. Site-specific and material specific tests should be performed for final design	GT10, GT12
8734	A slope "on the order of 1.0 percent" is proposed for the top of the cover system [Residue Management Plan]. As mentioned previously for the Category 1 waste rock stockpile cover (see Comment 5 above), landfill covers typically are designed to have a minimum inclination of 2 to 5 %, after accounting for settlement, to minimize ponding while also promoting runoff and minimizing erosion ... A minimum cover slope of least 2 %, after accounting for residue settlement caused by placement of the gradefill and cover, is recommended.	GT04
8742	PolyMet should commit to employing a rigorous CQA [Construction Quality Assurance] program that includes continuous observation during installation, nondestructive testing of all seams, periodic collection and testing of seam samples for shear and peel strength, and elimination of wrinkles. In addition to the routine CQA practices ... electrical leak detection should be considered as part of the CQA program for the geomembrane installations.	GT10, GT12
8748	PolyMet should commit to employing a rigorous CQA [Construction Quality Assurance] program for geomembrane installation that includes continuous observation during installation, nondestructive testing of all seams, periodic collection and testing of seam samples for shear and peel strength, elimination of wrinkles, and possibly electrical leak detection (highly recommended...). Otherwise, the predicted leakage rates, which are based on a 90th percentile frequency of only 4 defects per acre, may grossly underestimate the true leakage through the liners.	GT10, GT12
8750	There do not appear to be any provisions in the liner design to protect against puncture of the geomembrane in the liner system. Will any restrictions be imposed on the maximum size and angularity of the drainage layer material (proposed to be crushed rock or gravel) or soil liner material? Such restrictions should be considered, along with installation of a cushion geotextile between the geomembrane and drainage layer, to minimize the potential for defects created after the geomembrane is covered	PD07, PD15
8752	Although PolyMet is correct that the composite liner systems proposed for these stockpiles are similar to those used for modern heap leach facilities, a maximum hydraulic conductivity of 10-6 cm/s is generally recommended for the compacted soil component of heap leach pad liners ... While this is indeed the case for the Category 4 stockpile, a maximum hydraulic conductivity of 10-5 cm/s is prescribed for the Category 2/3 stockpile liner. This difference in the two designs seems arbitrary and is not well justified.	GT10
11587	[Request 30-day extension of comment period]...I am emailing you with a big concern about our attempts to get geochemistry leachate data and other relevant water data from the MN DNR regarding PolyMet. I am hoping you might work with Brenda to urge the MN DNR to grant a 30-day extension to the comment period, and that the DNR would be encouraged to fully share the data that has been requested repeatedly	NEPA07

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Friends of the Boundary Waters (42984)	
11592	[Requesting 30 day extension to comment period] MCEA requested technical documents of the DNR were not provided in a timely fashion. The first document: "Wetland Impact Assessment Technical Memorandum - Appendix B" was requested from the DNR on January 23, 2014. MCEA did not receive a copy of it until February 24, 2014. This technical memo was the sole basis for the sensitivity analysis that determined the extent of the potential indirect wetland impacts that could occur as a result of groundwater drawdown.... The second document, PolyMet 2013k, was cited 14 times in Chapter 5 of the SDEIS and should have been included on the SDEIS reference disk but was not. This document provided data on potential indirect impacts that may occur as a result of the augmentation of Second Creek. MCEA requested the data from the DNR on February 20, 2104, and received it on February 24, 2014. The delay in receiving these documents resulted in delays to our technical expert's review of the information.	NEPA07
11598	MCEA made several requests for [geochemistry leacheate] documents that were cited in reference documents. The path has finally led to documents from 2007, which MCEA requested. The database MCEA received this week is incomplete and has many empty cells in the Excel spreadsheet. Many of the missing cells appear that they would have contained leachate concentrations above water quality standards. For example, a plot of nickel concentrations in one document shows a great many samples of test pile leachate to be above the 10 mg/L for Ni. But in the database that accompanied it, only six samples with concentrations above that limit are shown. Most of the entries in the database are filled with "#N/A." It seems odd that the higher values for Nickel are missing. This occurs for many constituents - not just Nickel. We still need a database with all the entries included.	WR071
11604	[Requesting more time to review] MCEA and Friends of the Boundary Water Wilderness have hired experts to support review of documents. Issue with the SDEIS because the information used to analyze the geochemistry of the project has changed in significant ways over time. Some of the changes have included changing the approach to characterizing the waste, the inputs to the water quality model, and grouping and cutoff values for reactive waste. When the data were finally received, the concentrations were in 89 individual spreadsheets rather than in a single database which would have facilitated the separation of the samples according to waste category.	NEPA07
11608	our experts have identified a significant mitigation measure that is discussed in the Water Modeling documents but referred to only obliquely and with no details in the SDEIS (pg. 5-102). The proposal includes pumping water from the East Pit backfill for treatment in the WWTF. PolyMet proposes pumping water at 1750 gpm during years 22-31. Not only is 1750 gpm a large volume of water to be treated, it may imperil the ability of the East Pit to remain saturated. If the East Pit is not saturated, it no longer offers the benefits of subaqueous disposal. Pumping this volume of water from the pit may risk exposing it to air, causing reactivity. This proposal appears to be critical to the reclamation plan, but it is not explained, analyzed, or presented in the SDEIS. Our experts need time to evaluate if this proposal is feasible.	WR088
14295	Overall, the long term stability of the waste rock deposited in the pits and covered with water is a much lower long-term risk that leaving it on the surface with a plastic sheet over it.	ALT06, ALT07
<b>Sender Name (Submission ID)</b>	Friends of the Cloquet Valley State Forest (42926)	
9677	Friends of the Cloquet Valley State Forest requests that Minnesota Department of Natural Resources (DNR) reject the Supplemental Draft Environmental Impact Statement (SDEIS) for the NorthMet Mining Project, it is incomplete and inadequate.	NEPA15
9682	Nanofibers, including asbestos like ultrafine particles, will be generated during mine blasting and will be moved through transportation of materials and during their storage into the air.	AIR03
9684	The particles [asbestos like ultrafine particles] pose a threat to health.	HU03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Friends of the Cloquet Valley State Forest (42926)	
9688	The St. Louis River has more mercury than is acceptable, and both mercury and sulfide, capable of making the mercury more bioavailable will be added to the river as a result of this project.	MERC18
9701	Already “Contaminant levels in fish exceed state standards for mercury and polychlorinated biphenyls in Minnesota and Wisconsin at levels greater than other areas due to legacy contaminants, it is an area of concern due to elevated mercury. “ (Philippe Grandjean, available in PMC Jan 1, 2012. )	MERC02, REF01
9703	This project [NorthMet] would allow more [mercury] contamination to go into at least one river which is a tributary of the St. Louis River and that is unacceptable.	MERC23
9705	There will be measurable economic benefit lost to the region, state, nation and world by harm done to humans from waste that will be produced by this project, negating its value to society.	SO01
9715	In particular the Fond du Lac Tribe located at the Fond du Lac Reservation will experience greater impact due to the fact that the residents there rely on the fish from the St. Louis River.	AQ05
9716	Additionally there is risk that the wild rice not only is harmed in its growth by sulfates, but that it holds heavy metals and can pass them on to those who eat the rice.	VEG04
9717	Small amounts of mercury can be very harmful. “ Loss of cognitive skills reduces children’s academic and economic attainments and has substantial long-term economic effects on societies. Thus, each loss of one IQ point has been estimated to decrease average lifetime earnings capacity by about €12 000 or US\$18 000 in 2008 currencies.”	MERC03
9719	Land Exchange – the exchange proposed is being undertaken to allow uses the deed specifically bars and which would be illegal under the laws as they exist today without the exchange.	LAN02
9720	The [land] exchange serves one purpose – to allow a forbidden use which use will be harmful to the forest and to the people and to the State and Nation.	LAN02
9723	The Forest Service acquired the lands which PolyMet wants to strip mine under the Weeks Act which the Forest Service publicly described in this manner in 2011.	NEPA03
9725	The deed (attached) specifies that the land may be mined but that it must be left relatively intact and that all mine waste must be removed within 6 months.	REF01
9726	The Forest Service has proposed a land exchange which will strip the applicable laws away and make the lands vulnerable to strip mining.	LAN02
9731	The headwater streams will be harmed, the forest will be harmed and the residents, animals and plants endangered by this project.	GEN01
9732	It is not in the best interests of the forest or Minnesota or the people of the US or even the Forest Service to allow this land exchange.	LAN01
9735	Ultimate use of the PolyMet project site differs from what is proposed in this EIS, it is widely discussed in the press and in investment materials that PolyMet plans to expand their operation shortly after being permitted.	PD30

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Friends of the Cloquet Valley State Forest (42926)	
9737	Other mines have indicated their intent to utilize the Polymet plant and or the nearby area, including Twin Metals which identifies plans to put waste not far from Polymet, south of the Laurentian Divide in the Lake Superior Watershed, in their planned mining project.	CU02
9738	Additionally it has become clear that there is a need for a comprehensive review of economic development in the Arrowhead with planning that includes the voices of the citizens is called for , with an that involves the communities and assessment of cumulative economic, social and ecosystem impacts.	SO04
9743	Much of the project will generate enormous amounts of pollution and PolyMet plans to use various methods to capture the pollution and to repair the damage it does, yet its business plan doesn't show where it will get the money to do so.	FIN01
18718	we request that the United States Army Corps of Engineers deny the Section 404 permit due to the unacceptable adverse impacts to thousands of acres of wetlands	COE03
18721	This project would allow more [mercury] contamination to go into at least one river which is a tributary of the St. Louis River and that is unacceptable.	MERC23
18723	There will be measurable economic benefit lost to the region, state, nation and world by harm done to humans from waste that will be produced by this project, negating its value to society.	SO02
18724	the Fond du Lac Tribe located at the Fond du Lac Reservation will experience greater impact due to the fact that the residents there rely on the fish from the St. Louis River. Additionally there is risk that the wild rice not only is harmed in its growth by sulfates, but that it holds heavy metals and can pass them on to those who eat the rice.	SO02
18725	the exchange proposed is being undertaken to allow uses the deed specifically bars and which would be illegal under the laws as they exist today without the exchange. The exchange serves one purpose- to allow a forbidden use which use will be harmful to the forest and to the people and to the State and Nation.	LAN02
18726	The Forest Service acquired the lands which PolyMet wants to strip mine under the Weeks Act which the Forest Service publicly described in this manner in 2011. The deed (attached) specifies that the land may be mined but that it must be left relatively intact and that all mine waste must be removed within 6months. The Forest Service has proposed a land exchange which will strip the applicable laws away and make the lands vulnerable to strip mining. This was not why the US bought the land and it should not be allowed to happen.	LAN02
18728	Ultimate use of the PolyMet project site differs from what is proposed in this EIS, it is widely discussed in the press and in investment materials that PolyMet plans to expand their operation shortly after being permitted.	PD30
18731	Much of the project will generate enormous amounts of pollution and PolyMet plans to use various methods to capture the pollution and to repair the damage it does, yet its business plan doesn't show where it will get the money to do so.	FIN01
18738	Either the project includes the enormously costly water treatment andthat treatment's energy demands must be accounted for along with all the other costs or the plan doesn't include the water treatment and the pollution the project will generate should be calculated without it.	FIN05
18739	How can a project that would not even consider underground mining because it is not a financially viable option take on an enormously expensive treatment means without showing that is possible.	ALT01
<b>Sender Name (Submission ID)</b>	Front Desk (17365)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Front Desk (17365)		
1973	I implore you to take a stand, against allowing the mining companies, anywhere near, any waterway, tributary, stream connected to or running into a Boundary Water Area Lake Or Waterway.	WR111, WR195
2099	The residue left behind by copper mining seeps into the water, kills plant life, fish and wildlife.	VEG06
<b>Sender Name (Submission ID)</b> Gabe Ernst (43803)		
11815	The amount of damage that this will to the watersheds and their associated recreation and tourism does not add to a good decision to bring a mine here.	LU06
11817	Please push back against this corporate interest that will inevitably lead to further poverty in our region just like the last time mining collapsed. We have moved beyond this economically and there is no reason to regress back again.	SO02
<b>Sender Name (Submission ID)</b> Gael Zembal (15406)		
618	Based on the assumptions and unscientific data in the SDEIS regarding water quality and pollutants, I am urging a rejection of this plan.	WR025, WR072, WR073, WR189
622	[This project] is a type of mining that is completely different from the taconite mining conducted in northern Minnesota. Therefore, any comparisons made between these two types of mining should not be used in the analysis.	PD27
624	Of most concern however, is the inaccurate models used in the SDEIS to calculate groundwater base flow. ... The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump.	PD29, WR003, WR010, WR012, WR061, WR165, WR168
628	Though the SDEIS proposes reclamation of affected wetlands, the formation of peat, which can take decades, is not mentioned. There is also no plan to account for the 7,351 acres of wetlands that would be indirectly harmed by this operation.	WET01, WET05
629	PolyMet's predictions of water pollution rely on unsubstantiated assumptions that no pollution will seep from the 526-acre permanent mine site waste rock pile into the 100 Mile Swamp, and that pumps on the edge of the 2-mile-wide tailings pile will capture 99.37 percent of the seepage.	PD29, WR017
631	The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no real-world support, and should not be used to promote this plan.	PD07, WR018
635	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions and inaccurate information.	WR189, WR202
636	This project would violate water quality standards for generations to come.	PER09
1894	Please reject the PolyMet NorthMet SDEIS as inadequate, and acknowledge that the open-pit sulfide mine plan would have unacceptable and far reaching environmental impacts.	NEPA09
1896	Please reject the SDEIS on the basis of unacceptable environmental damage to wetlands and water quality in northern Minnesota.	NEPA09, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gael Zembal (15406)		
12763	Of most concern however, is the inaccurate models used in the SDEIS to calculate groundwater base flow. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump.	WR003, WR012
12764	The mine site is located on high value peatlands that cannot be replaced. Though the SDEIS proposes reclamation of affected wetlands, the formation of peat, which can take decades, is not mentioned. There is also no plan to account for the 7,351 acres of wetlands that would be indirectly harmed by this operation.	WET01, WET05
12765	PolyMet’s predictions of water pollution rely on unsubstantiated assumptions that no pollution will seep from the 526-acre permanent mine site waste rock pile into the 100 Mile Swamp, and that pumps on the edge of the 2-mile-wide tailings pile will capture 99.37 percent of the seepage. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no real-world support, and should not be used to promote this plan.	WR018, WR167
<b>Sender Name (Submission ID)</b> Gaelynn Lea (5933)		
1292	I also believe that it is our duty to alleviate suffering whenever possible, in this case, suffering from the future harm and disease caused by toxins that will almost certainly be released by this proposed PolyMet mine.	PD01
1930	We loan PolyMet our land for 20 years, less than one generation’s time, and they will leave it polluted for 500 years? That means over 16 generations of future Minnesotans would be affected by pollution caused by the PolyMet Mine!	WR037, WR195
1931	Mining by-products such as arsenic, manganese and thallium, have been shown to increase the risk of cancer and other illnesses in humans. Make no mistake, there WILL be disease created by this mine.	HU03
1932	Experts who have studied other mining projects across the country said even those that start with financial safeguards can end up costing taxpayers millions of dollars. ... Another study says that water treatment would cost between \$3.5 and \$6 million per year after the mine closes. Northern Minnesota cannot afford to foot that bill. Not for one year, not for 500 years.	FIN10
1933	Maurices is soon expanding its corporate office, and they’re slotted to create 600 jobs right here in Duluth. PolyMet will only create 360 full-time jobs, with HUGE liabilities attached. Let’s focus on industries with less risk and more jobs.	SO02
<b>Sender Name (Submission ID)</b> GaiaTrading (20110)		
15013	long term consequences presently unknown.	GEN01
<b>Sender Name (Submission ID)</b> Gail Gilliland (21539)		
1282	In the information I have gleaned from the SDEIS for the Polymet project, I do not see a clear protection of wetlands. The destruction of large acreage on the site plus the water table drawdown will have a negative impact on the ecosystem.	WET10, WET23
<b>Sender Name (Submission ID)</b> Gail Gray (26481)		
15248	The federal land give-away to a mining company is not in the public's interest, it is not in the interest of wildlife, it is not in the interest of keeping our Great Lakes clean and fresh.	LAN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gail J. Harty (6215)		
1057	It would be short term financial gain for a relative few, compared to the long term gain, on several levels, for countless individuals and businesses for the countless generations to come	SO01
<b>Sender Name (Submission ID)</b> Gail Jacobson (40090)		
6454	Please take the following actions:1) Revise the SDEIS to provide details of the economic models used to simulate the costs of underground mining and its economic feasibility2) Revise the SDEIS to eliminate assertions that the Underground Mining Alternative does not offer environmental benefits, since the co-lead agencies found that it would offer significant environmental benefits3) Revise the SDEIS to include the Underground Mining Alternative as an alternative to the proposed action4) Revise the SDEIS to include the West Pit Backfill Alternative as an alternative to the proposed action	ALT01, ALT03, ALT06
<b>Sender Name (Submission ID)</b> Gail Matthews (11591)		
2250	They [mining companies] came in with lots of money to push their agenda, convince people they will do no harm, but they always leave when the mines dry up and they leave a big mess for others to clean up.	FIN01
2250	They [mining companies] came in with lots of money to push their agenda, convince people they will do no harm, but they always leave when the mines dry up and they leave a big mess for others to clean up.	FIN01
3251	hey will destroy our water, our land, our recreational areas, and the jobs will be short term, causing another economic depression when they leave. Our environment is more important than profits for a few.	SO01
3251	hey will destroy our water, our land, our recreational areas, and the jobs will be short term, causing another economic depression when they leave. Our environment is more important than profits for a few.	SO01
<b>Sender Name (Submission ID)</b> Gail Roberts (54491)		
18040	The short-term financial gain of a Canadian mining company should not trump the long-term stake that all of us have in protecting our natural resources for future generations.	SO01
18041	The proposed PolyMet/NorthMet project would take over 6,700 acres of public land in the Superior National Forest. Although the SDEIS provides an analysis of the land exchange it does not acknowledge the full impact on tribal rights, plant and animal habitat, and public assets.	WILD01
18043	The area of the proposed mining project is home to several endangered or threatened animal and plant species and also provides a natural corridor for birds and other forms of wildlife from the south of Lake Superior to the areas north and beyond.	VEG01, WI01, WI03
18045	The construction of the mine will destroy thousands of acres of wetlands, mainly high quality bogs that provide habitat for a number of species and also purify the water, regulate the water flow and sequester carbon, which reduces climate change.	WET13
18047	The discharges from the mine pit and waste rock piles, seepages from the tailings basin and overflow from the uncovered flooded mine pit after closure are likely to pollute local ground water and water in the Partridge and Embarrass Rivers as well as downstream in the St. Louis River which empties into Lake Superior.	WR107, WR108, WR111
18050	Sulfate, manganese, and aluminum discharges from the existing LTV tailings are already in serious violation of water quality standards.	WR109

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gail Roberts (54491)	
18052	The acidity in the discharges and seepages will reduce the viability of wild rice beds that are downstream and that are used by Native Americans as well as being an important source of food for waterfowl.	CR01
18054	The PolyMet/NorthMet project will lead to increased acidity of streams and rivers, especially the Partridge River which flows into the St. Louis River. (...) The acidity leads to increased methylation of mercury, which is known to harm fish, and other aquatic forms of life. This will lead to increased fish consumption advisories and have a direct impact on fishing, recreational opportunities, tourism, treaty rights and human health.	WR113
18056	Several endangered or threatened species will be impacted by this project including but not limited to the wood turtle, black sand shell mussel and the floating marsh marigold. The project is proposed to be located in habitat currently inhabited by Canada lynx, a threatened species, and moose, a species of special concern.	VEG01, WI01
18058	The proposed PolyMet/NorthMet project would impact thousands of acres of forest and wetlands that will not be available for other uses for generations even with reclamation.	LU06
18059	Serious contamination of the ground and water due to acid rock and mine drainage will impact areas far removed from the mine and tailings basin sites. After closure the flooded mine pit will be a large body of water but will not be available for any recreational purpose and will be harmful to waterfowl that land there.	WR141
18060	The economic benefit of this project has been over-estimated by PolyMet and its promoters because the short-term gain of 200 to 400 jobs has to be balanced against the loss of jobs and revenue for the state from recreation, tourism and related activities over a much longer period of time.	SO01
18062	The SDEIS does not provide specifics regarding financial assurances from PolyMet.	FIN01, FIN08
18064	PolyMet has yet to provide a scientifically-valid plan to mitigate the disastrous long-term environmental effects of their proposed sulfide mining project.	NEPA14
18512	Although the SDEIS provides an analysis of the land exchange it does not acknowledge the full impact on tribal rights, plant and animal habitat, and public assets.	CR01
18514	The proposed replacement wetlands are not of comparable quality and are not even in the same St. Louis River watershed.	LAN03
18516	The scattered parcels of land being proposed as an exchange are not an adequate replacement for the high-quality habitat that would be lost.	WI02
18518	The discharges from the mine pit and waste rock piles, seepages from the tailings basin and overflow from the uncovered flooded mine pit after closure are likely to pollute local ground water and water in the Partridge and Embarrass Rivers as well as downstream in the St. Louis River which empties into Lake Superior.	WR107, WR108, WR111
18523	The surface aquifers to the north of the tailings basin are already saturated by contaminated water from the old LTV tailings. This means that there will be little or no dilution of the polluted groundwater from additional rainwater and that more polluted water will be added to the same area by putting PolyMet's tailing slurry on top of the old LTV tailings.	WR059
18525	Sulfate, manganese, and aluminum discharges from the existing LTV tailings are already in serious violation of water quality standards. PolyMet claims that the discharges of these known pollutants from their tailings will be removed through as yet untested methods in a project of this size and duration.	PD10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gail Roberts (54491)		
18531	The acidity in the discharges and seepages will reduce the viability of wild rice beds that are downstream and that are used by Native Americans as well as being an important source of food for waterfowl. This pollution will continue for decades and even hundreds of years as now acknowledged in the current Poly Met/North Met SDEIS. The Department of Natural Resources should not allow the mining companies to evade their responsibilities for clean water resources in this way.	CR01
18537	The acidity [from leaching of rock in the mine pits] leads to increased methylation of mercury, which is known to harm fish, and other aquatic forms of life. This will lead to increased fish consumption advisories and have a direct impact on fishing, recreational opportunities, tourism, treaty rights and human health.	CR01
18540	Because the area of the proposed open pit mining operation is much larger than what would be required for an underground mine, much more wildlife habitat would be destroyed for the project as proposed.	WI02, WI10
18593	Endangered, threatened and protected species must be conserved. The impact of the proposed PolyMet project on fish and wildlife populations is not acceptable.	AQ05
18597	The proposed PolyMet/NorthMet project would impact thousands of acres of forest and wetlands that will not be available for other uses for generations even with reclamation.	LU06
18598	The economic benefit of this project has been over-estimated by PolyMet and its promoters because the short-term gain of 200 to 400 jobs has to be balanced against the loss of jobs and revenue for the state from recreation, tourism and related activities over a much longer period of time.	SO02
18599	A foreign corporation should not be allowed to extract Minnesota's natural resource, send it overseas for production and leave Minnesota taxpayers with the pollution, waste and long-term expense of reclamation and cleanup.	SO02
18601	The SDEIS does not provide specifics regarding financial assurances from PolyMet.	FIN08
18603	PolyMet's assets and resources do not appear adequate for the estimated \$200 million or more that would be needed for cleanup and remediation over the next decades, let alone over the next 500 years.	FIN01
18604	Minnesota's financial assurance statutes must be strengthened to protect taxpayers and citizens of the state.	FIN10, FIN14
18607	Despite the opportunity to re-do the DEIS and the three years of additional work and considerable expense, PolyMet has yet to provide a scientifically-valid plan to mitigate the disastrous long-term environmental effects of their proposed sulfide mining project.	PD01
18610	A Health Impact Assessment (HIA) should be conducted on a project of this magnitude with such serious long-term health effects.	HU01
<b>Sender Name (Submission ID)</b> Gail Rosenquist (50059)		
13014	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Gale Havrilla (40492)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gale Havrilla (40492)		
14312	I live near Silver Bay and a number of the once fishable streams have been reduced to fowl smelling drainage ditches void of the once healthy aquatic system due to leachate from the taconite settling ponds. I fish the St. Louis River and Lake Superior and do not want to see additional pollution entering them.	AQ06, WR113
14313	2/3 of North Shore children have already been shown to have harmful [mercury] levels in their systems. The problem should not knowingly be allowed to worsen.	MERC03
<b>Sender Name (Submission ID)</b> Galiena Anderson-Lind (49987)		
12989	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Garret T Wright (44963)		
17126	I'm afraid if another region mines these minerals, tight restrictions, regulation and watchdogs will be less existent in those regions – resulting in a greater risk for environmental loss, employee exploitation, business mis-management. If these precious metals are mined in Minnesota, a very strident-progressive state; the commonwealth would keep a close watch on the company PolyMet which will pressurize them into making responsible business decisions when it comes to preserving the environment.	SO10
<b>Sender Name (Submission ID)</b> Garrett Ferderber (22744)		
12481	I would like to know that the people of Minnesota actually stand to gain more than a polluted hole in the ground in the long term and that our leaders are fulfilling their obligations to our future and not acting irresponsibly for short term gain.	GEN01
12860	I would like to hear relatively easy to understand information about how the NorthMet site is or is not actually proceeding in accordance with state and federal laws.	PER06
<b>Sender Name (Submission ID)</b> Garrett Labarre (15536)		
728	I can see how the copper mining would be good, but it could end up polluting the Great Lakes and possibly kill many aquatic animals.	AQ05
729	[Copper mining] also could take over 500 year to clean up the mess.	WR189
730	It is also possible that [copper mining] could pollute the Boundary Waters area, where many people love to fish and vacation. If the fish get polluted and then are caught and eaten, could it be a threat to the people eating the polluted fish?	HU01
731	I realize that mining could provide jobs and produce the state a lot of money. The mining could provide the needy, jobless and help many families in the area.	SO10
732	When sulfide ores are exposed to air and water, sulfuric acid is made, which causes the leaching of potentially toxic heavy metals and the release of sulfates.	WR001
733	If acid mine drainage and sulfate contamination are not properly controlled at these mines, the damage to fish and wildlife, and possibly human health, in Lake Superior will likely be irreversible.	WI04, WR111

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Garry Budolfson (10417)	
542	YOU SHOW NO DATA FOR A EPIC RAIN EVENT.	PD22
<b>Sender Name (Submission ID)</b>	Garry Leaf (58121)	
19944	Minnesota has some of the most responsible environmental permitting standards in the United States. They are far better than so many places in the world, where these critical metals, like copper and nickel, are currently coming from	GEN02, PER34
<b>Sender Name (Submission ID)</b>	GARY (3234)	
196	Moreover, the cost of treatment for 500 years cannot be calculated with any reasonable certainty. How can we expect a company, or a bonding company, or even a state held escrow fund to be available in 500 years.	FIN01, FIN05
585	The expected contamination and water treatment requirement for 500 years cannot be seen as a reasonable trade- off for jobs, and even prosperity, for only 20 years.	SO01
587	How can we expect a company, or a bonding company, or even a state held escrow fund to be available in 500 years.	FIN01
<b>Sender Name (Submission ID)</b>	Gary & Lois Travis (36628)	
3819	So much death will occur if the nearby waters are poisoned or the surrounding land is poisoned, how can you repair or replace that.	GEN01
<b>Sender Name (Submission ID)</b>	Gary Anderson (46956)	
10799	PolyMet should not be allowed to destroy high value wetlands in the 100 Mile Swamp and the Partridge River headwaters for its open-pit sulfide mine. The SDEIS admits that PolyMet would directly destroy 913 acres of wetlands and as much as 7,351 acres of wetlands due to air and water pollution, mine dewatering and diverting water from wetlands. That could be the single largest wetlands loss ever proposed in Minnesota in the history of the Clean Water Act!... The "compensation" wetlands plan proposed by PolyMet is also completely inadequate. More than 2/3 of the replacement wetlands are outside the Lake Superior Basin and there is no mitigation at all for indirect wetlands loss. Monitoring and maybe doing something later is not an answer, especially since the Army Corps has never required mitigation for dried out or polluted wetlands after-the-fact...• Deny the PolyMet Section 404 permit, since the PolyMet SDEIS plan provides no mitigation for thousands of acres of foreseeable "indirect" wetlands losses.• Deny the PolyMet Section 404 permit unless all “compensation” mitigation for wetlands is provided within the Lake Superior Basin.	COE01, COE02, WET01, WET03, WET19, WET23
10800	Wetlands in the 100 Mile Swamp and Partridge River Headwaters have been changed very little for thousands of years, long before human settlement. They are important for water quality and as a habitat for moose and other at-risk species.	WI02
10802	Wetlands at the PolyMet mine site also bind up mercury, so it doesn't get into downstream fish and harm the brain development of our children who eat St. Louis River and Lake Superior fish.	MERC09
10804	Wetlands that would be harmed or destroyed by the PolyMet mine are water resources of national and international importance...Reject the PolyMet sulfide mine due to its unacceptable impacts on wetlands and water resources of national and international importance.• Reject the PolyMet SDEIS as inadequate due to the fact that no alternatives that could reduce water pollution and wetlands destruction are analyzed in the SDEIS.	WR195

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gary Anderson (46956)		
10805	• Deny the Section 404 permit for the PolyMet sulfide mine plan, since it would destroy irreplaceable wetlands, peatlands and wetlands functions.	COE03
10807	The environmental review process is supposed to let us weigh alternatives. The PolyMet SDEIS doesn't suggest any alternatives to reduce impacts on wetlands at the mine site. ...The SDEIS rejects underground mining without studying how avoiding an open-pit could reduce environmental harm. It doesn't look at alternatives that would restore wetlands on site or clean up mine water and keep it in the Partridge River watershed. ... Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality. These alternatives should be considered:1. Underground mining, looking at the full ore deposit and PolyMet's real costs;2. Putting a liner under the Category 1 waste rock stockpile;3. Placing all tailings on a new completely lined facility;4. Returning the Category 1 waste rock to the West Pit to reclaim 500 wetland acres;5. Building the reverse osmosis on the mine site in year 1 to treat (up to standards) and discharge runoff and pit water on site to minimize impacts to wetlands.	ALT01, ALT06, ALT07, ALT10
<b>Sender Name (Submission ID)</b> Gary Boelhower (44854)		
10141	wetlands [affected by the proposed Project] are irreplaceable...The significant function that the wetlands play in this region would be lost to both plant life, animal life, and the natural processes related to purification, sedimentation, and natural water regulation.	WET24
10143	[Polymet's] plan to purify the water is inadequate. Reverse osmosis systems need to be significantly expanded. It is ridiculous to make the assumption that there will not be significant leakage and seepage in several directions.	WR143
10150	With the immense amount of blasting in the area, it is likely that significant rock fractures will occur. PolyMet has not substantiated its claims that nearly all seepage could be captured by pumps at one end of the 2-mile wide tailings basin. Fractures already known to exist at the PolyMet mine and plant site would transport pollution. There is geological evidence to suggest that seepage must be treated in several locations, and there must be back-up systems in the event of failure.	WR010, WR012, WR016, WR018, WR090, WR144
10154	The PolyMet project would degrade Minnesota surface water quality, increasing arsenic by 55% and copper by two-thirds; more than doubling concentrations of lead, antimony and selenium, and increasing levels of cobalt to 300% and nickel to 500% of "no action" levels. These effects are unacceptable.	WR108
14171	[The] old LTV basin already violates water quality standards. The SDEIS does not adequately address leach out from this basin.	WR070, WR105
14173	PolyMet's 526-acre permanent, unlined Category 1 waste rock pile would be less protective than its old proposal, which would have provided lined stockpiles for long-term waste heaps.	WR017
14174	we must seriously ask the question whether or not it is environmentally responsible to propose a mining process in a water-rich environment that will require water purification systems to operate effectively for 100 or 200 or 300 or 400 years	WR035
14175	seepage and run-off would affect wild rice growth--a sacred food for tribal members of the region	VEG04
14176	seepage would make its way to Lake Superior and raise the mercury level in fish which when eaten raises the level of mercury in humans.	MERC03
14177	Polymet's own analysis allows 1506 micrograms per liter (ug/L) criterion of manganese at the plant which is 15 times higher than the health risk limit set by the Minnesota Health Department to prevent brain damage in infants, children and adults.	HU05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Gary Boelhower (44854)		
14179	The PolyMet project would increase arsenic in Colby Lake drinking water by 38.5 %, causing higher cancer risks than the level proscribed under Minnesota’s cancer risk rule. The PolyMet project would degrade Minnesota surface water quality, increasing arsenic by 55% and copper by two-thirds; more than doubling concentrations of lead, antimony and selenium, and increasing levels of cobalt to 300% and nickel to 500% of “no action” levels.	HU05
<b>Sender Name (Submission ID)</b> Gary Burt (7)		
300	[Polymet corporation should] guarantee that they would hold themselves financially accountable for any problem or hardship they created.	FIN01
306	The Polymet corporation... want[s] to create jobs, and create a small amount of wealth for a few people, and create a large amount of wealth for an even smaller group of people. They also want to make people in this area dependent on them for the jobs they create, and the money it will, supposedly, bring to the area, but this will only be true for as long as the mine also makes them extremely wealthy.	SO06
343	the CEO and board of Polymet will, as much as possible, try to keep themselves isolated from any of the consequences that result from their economic intentions and decisions.	FIN01
346	if we are to make any kind of rational decisions about this corporation, and their business proposition, we need to get to the full truth, and not just the part that makes them look good, such as the jobs they boast will be created.	SO04
1550	what is the carbon footprint of the [NorthMet Project]	AIR01
17754	How much carbon will be emitted in the process of mining? How much carbon will be emitted from the vehicles of the people going to work everyday?	AIR01
17755	How many roads, and how much infrastructure will have to be created, repaired, and maintained to keep everything functional for the next 20 years?	PD36
<b>Sender Name (Submission ID)</b> Gary Clements (16502)		
1539	I believe the propoosal also would be in clear violation of Section 404 of the Clean Water Act, because of the total imbalance of the wetlands acreage that Polymet’s operation would destroy, and also because I cannot find any definitive study of the relative assessed valuation of the two parcels.	WET14
1540	[The SDEIS is unclear about] water treatment, both from the current LTV plant tailings pit ... and the area where the sludge ... from the reverse osmosis process is to be dumped.	WR145
1541	the ground water flowage in the area [is unclear] ... Let’s see an actual physical study of what waters ... are down there and where they feed. Do they feed the [surface waters or drinking water sources]?	WR007, WR071, WR135
1542	[It is inaccurate to use] a computer model [for reverse osmosis] rather than hard actual experience somewhere to extrapolate that this process will actually work on this massive scale across this massive time period ... [and the Flambeau mine example does not give] confidence that this kind of system will actually work	WR023, WR143
1546	as a Minnesota taxpayer ... I am appalled that there is not a more complete explanation of the financial assurances needed to guarantee that the costs of centuries of treatment and/or cleanup will not fall on Minnesotans.	FIN01, FIN03, FIN05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gary Clements (16502)	
1547	It seems incredibly irresponsible to put off the discussion of financial assurances until later in the permitting process	PER03
1551	I see no figures about the cost of constant monitoring and operating the filters and pumps and equipment that will be needed ... Parts will fail and wear out and need to be replaced.	WR128
1552	Why is there no inclusion of potential weather disaster related potential for spillage, and the cleanup costs from that? The experience just two years ago in Duluth, and the flooding elsewhere due to increasing weather extremes MUST be taking into account.	FIN05
1554	I realize [weather disaster cleanup costs] is difficult math, and perhaps is overbearingly expensive to contemplate ... And that expense should be clearly identified, even if it is extreme, and be done in a bonded way whereby the necessary income is guaranteed.	FIN05, FIN08
1555	Minnesota's current financial assurances law, and the current Polymet proposal using it is totally inadequate.	FIN14
1564	On balance, the risks and dangers ... are much greater than the short-term gains.	SO01
2030	It is clear to me that the original legislation that created the Superior National Forest recognized the undesirable nature of mining for sulfide bearing ores. The proposed exchange clearly violates the intent of that legislation, if not the letter of it.	LAN02
3439	The first [concern] is the question of the proposed land exchange. It is clear to me that the original legislation that created the Superior National Forest recognized the undesirable nature of mining for sulfide bearing ores. The proposed exchange clearly violates the intent of that legislation, if not the letter of it.	LAN02
3440	The second major question that has not been answered for me is the question of water treatment, both from the current LTV plant tailings pit, which is already known to be leaking, and the area where the sludge that is to eventually be captured from the reverse osmosis process is to be dumped. In fact, it seems inconclusive just where that sludge, which contains an even more highly toxic mix of pollutants, will wind up. Is it to be in some off-site landfill, where it poses even more untreated harmful potential, or is it to be in the area shown on the map near the mine site itself?	WR145
3441	A third major question is the one of the reverse osmosis procedure itself. I know that this procedure has been used on small scales to take particulate matter out of drinking water, but to use, again, a computer model rather than hard actual experience somewhere to extrapolate that this process will actually work on this massive scale across this massive time period totally stretches the imagination. The Flambeau mine in Wisconsin that is cited as an example is known to have been in violation at several points during its operation, and does not give us the scale of experience we need in order to have confidence that this kind of system will actually work in an operation the size of which Polymet contemplates.	WR023, WR128, WR143
3442	Finally, as a Minnesota taxpayer and grandfather of two who will be around long after the proposed operation is finished, I am appalled that there is not a more complete explanation of the financial assurances needed to guarantee that the costs of centuries of treatment and/or cleanup will not fall on Minnesotans.	FIN01, FIN10
3443	On balance, this project proclaims to promote employment in Minnesota, some as short term as the construction of the plant, some for a few years longer, and it proposes to reap millions and millions for the mining companies who are already committed to selling the copper to China for a number of years. On balance, the risks and dangers to the long term health of the forest, the waters of the Lake Superior watershed, and the creatures who live there, including the human creatures, are much greater than the short-term gains.	WI13, WR111, WR115

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Gary Clements (16502)		
16255	I believe that the proposal also would be in clear violation of Section 404 of the Clean Water Act, because of the total imbalance of the wetlands acreage that Polymet’s operation would destroy, and also because I cannot find any definitive study of the relative assessed valuation of the two parcels. I believe that such a valuation is required as part of any land exchange. Therefore I believe that it would be wrong, if not illegal, for the Forest Service to go ahead with this exchange as proposed.	WET14
16256	[Mining sludge] is the worst of the worst, and the plan for its long term treatment protection is very unclear.	PD01
16257	Even worse is the totally inadequate study of the ground water flowage in the area. The Minnesota Geological Survey studies show fracturing beneath the mine and plant site areas that go well beyond what is stated by Polymet, and to use only “computer models” as a definitive statement of how much leakage there might be out the bottom of the system, and exactly where that groundwater flows, is pretty much ridiculous. Let’s see an actual physical study of what waters are down there and where they feed. Do they feed the Partridge River? Do they supply Colby Lake, a source of city water for Hoyt Lakes? Do these ground waters supply a number of area rural wells? The Polymet estimations include millions of gallons that will escape treatment. Just how much magnesium, mercury, and arsenic will end up being leached from the earth as these waters flow into that ground water?	WR011, WR012, WR041, WR043, WR061, WR070, WR071, WR087, WR099, WR107, WR108, WR168, WR169
<b>Sender Name (Submission ID)</b> Gary Duggleby (46209)		
8854	To build its mine, PolyMet proposes to directly destroy 913 acres of high quality headwater wetlands and indirectly harm up to an additional 7,351 acres of headwaters wetlands due to air pollution, water pollution, and water diversions. These wetlands are in the headwaters of the Partridge River, an important tributary to the St. Louis River and ultimately Lake Superior.	WET24
8856	Most absurdly, PolyMet’s plan includes NO replacement of any indirect wetland losses.	WET01
16161	To build its mine, PolyMet proposes to directly destroy 913 acres of high quality headwater wetlands and indirectly harm up to an additional 7,351 acres of headwaters wetlands...Most absurdly, PolyMet’s plan includes NO replacement of any indirect wetland losses.	COE02
16162	There are many, many, many more different industries that would bring a lot more jobs, that would not compromise on the Nation's finest canoeing and camping wildlife areas.	SO02
<b>Sender Name (Submission ID)</b> Gary Fifield (46920)		
10825	We cannot afford the risk that is inherent in this project. ... The people living in the area, many of them, see jobs and livelihood resulting from the project. I do not think the number of jobs or the time they will last is adequate to justify the risk involved. We must not let the large absentee corporations make our future for us if it is too risky for those living here.	SO01
<b>Sender Name (Submission ID)</b> Gary Geisler (39356)		
12841	Clean water will become an increasingly rare resource for the future generations that survive. Do you really think they'll be able to maintain another poisonous legacy of our short sighted folly for many centuries to come without the equipment and know-how to do so?	FIN08, WR195
<b>Sender Name (Submission ID)</b> Gary Glass (43015)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gary Glass (43015)	
11725	The Land Exchange facilitates the project's implementation and permanent conversion of the forest and wetland areas into unusable waste lands of toxic drainage generating waste rock piles, a pit-lake lagoon which could become a chemo-stratified, toxic water waterfowl trap, and a pit-filled with millions of tons of reactive sulfide-containing rock capable of generating millions of pounds of toxic chemical concentrations.... The land exchange should not be done unless and until the major flaws in the project design are remedied and the land surface area is entirely planned... to be reclaimed for future productive uses.	LAN01
11728	The West Pit lake most certainly will become stratified with a chemocline and/or thomocline.. When that happens, oxygen will be depleted from the bottom waters and toxic metal concentrations and toxic gasses including hydrogen sulfide will be generated and will seep into adjacent water aquifers, and, over time, move off site into tributaries of the Saint Louis River. The East Pit burial site could also become major source of toxic metals, acid reactants, and toxic gas including hydrogen sulfide, through both chemical and biotic mechanisms, and similarly pollute surface and ground waters. All bore holes, wall and bottom fissures, cracks and crevasses must be sealed against water escape through pit walls and bottom surfaces as a precaution to limit seepage out of the pits.	WR002, WR173
11732	The first chapter sets out eleven major "constituents of interest" (pages 1-19-20) for the proposed project. Many more constituents are needed to properly deal with the actual and potential impacts from 355 million tons of mined rock	NEPA14
11736	Mercury as a major "constituent of interest" is covered in four of the eleven bullets: Hazardous Air Pollutants, Mercury, mercury compounds (Hg), Metals/Metaloids, and Methylmercury. With this emphasis, however, the quality of the data presented to document and evaluate the impacts is majorly flawed and lacking. Sampling protocols providing adequate numbers of samples to represent 355 million tons are inadequate. Specific details of what has been done are incomplete, lacking documentation, lacking certified sample analysis, lacking normal reporting of quality assurance checks and controls, and are unacceptable for scientific use and administrative evaluation.	AIR10
11738	Testing methodology for rock sample analysis appears to be flawed, preventing accurate results from being obtained due to inadequate quality control and quality assurance procedures, see SRK 2007b. The data set reported in Appendix D.4 pg 419 omits lines of data, reagent blank data omitted, and omits certified sample analysis data... ICP-MS mercury analysis show 20 samples out of 92 have mercury at 1 ppm with the rest at < 1 ppm. These data have a mean of 0.6 ppm Hg using half the detection limit to represent the less than values. The mean is 0.22 ppm Hg using zero for the blank values.... If the 92 samples are representative of the 533 M tons mined, and the mercury content 0.22 ppm Hg, then the annual total quantity of mercury mined would be 7,810 pounds per yr, or 21.4 pounds Hg per day. These estimated values are substantially larger than those sighted in the various chapters. In order to resolve this difference, more careful work and quality assured analysis must be done on the saved splits of samples to quantify the mercury content accurately for the 92 rock samples selected to represent the 355 million tons of ore and waste rock to be mined. Mercury levels and hazards from mercury exposure are significantly understated in the present SD EIS and DEIS, and must be corrected.	MERC04
11745	Sulfide sulfur is also acted on by natural bacteria Acidithiobacillus ferrooxidans.... which lives in pyrite deposits, and is capable of metabolizing iron and sulfur, and producing sulfuric acid .... This natural process seems to have been ignored in the recommended testing protocol and study results omitted in this SD EIS. Sulfide sulfur once oxidized by abiotic or biotic processes is soluble, acidic, and can move long distances in surface and ground water aquifers. In contact with stream and lake sediments oxidized sulfur is converted back to sulfide sulfur forming solid metal sulfides and dissolved, gaseous hydrogen sulfide which is as toxic as cyanide to aquatic plants... and to aquatic animals.	HAZ01
11748	Because millions of tons of sulfur compounds are being proposed to be processed, a common, neutral, and gaseous form of sulfur, hydrogen sulfide, should be identified as a constituent of interest because of its roll in the processing of the ore, and its toxicity and probable contributions the aquifers of the proposed project site. Modeling work should have included anoxic conditions and the parameters controlling sulfide sulfur reactivity, especially where hydrogen sulfide is stable and will be present.	AIR10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gary Glass (43015)	
11751	The existing LTVSMC Tailings Basin is an important component of the proposed project and should be identified as a significant constituent of interest for several important reasons: ...the existing tailings basin is built on peat soil and is not stable and leaks into the ground water aquifer requiring a yet-to-be proven "slurry-wall" sealed to bedrock to prevent ground water leakage necessary if reactive sulfide mine tailings are deposited as well. This "slurry wall" is a major undertaking and has not been proven or shown to be cost effective;	WR018
11763	the responsible party for the LTVSMC tailings basin should be required to deal with the existing problems and final closure and recovery of the tailings basin area for productive future uses, and not used to deposit sulfide tailings which most likely will create an acid-generating source of sulfuric acid increasing the leaching of toxic metals from BOTH sulfide mineral tailings and LTVSMC taconite tailings, causing environmental pollution.	LU02
16760	If worse case conditions were to develop, toxic metal concentrations and toxic gasses including hydrogen sulfide would seep into surface and ground water aquifers of tributaries to the Saint Louis River polluting the river and waters of Lake Superior. No recovery plans are presented for the most impacted land areas, and no provisions are provided to protect against any probable or worse-case water pollution scenarios. Proper plans to address probable scenarios and related resources must be provided.	NEPA05
16763	Modeling and mass inventory results in various chapters of this SD EIS are significantly flawed by the omission of mercury and mercury compounds, oxygen and anoxia, sulfide-metal complexes, hydrogen sulfide, and the resultant impacts in the mathematical modeling and inventory of all mercury- and sulfide- containing components. Mercury is one of the most studied elements and data are available for modeling in the same fashion that other metals of less known character are modeled.	MERC04, MERC11, MERC13
16768	The lack of quality data pertaining to the mercury content of the ore and waste rock also pertains to the other solid earth and soil components of the proposed project. In the absence of quality assured mercury data, little can be concluded with confidence.	MERC04
16769	The leach-testing methodology for rock sample leaching treatment appears to be seriously flawed and resultant sampling could underestimate volatile mercury and mercury compounds because the air-drying steps used during 6 days of every 7 days of each treatment cycle in the test procedure. There is no indication that precautions were taken to assure mercury analyte was not being lost during the 6 days of air drying cycles used in the "humidity test" procedure. Mercury compounds are known to sublime and have a positive vapor pressure that would facilitate their volatilization and loss from the solid sample surfaces during the air-drying and air-humidifying cycles (CRC Handbook of Chemistry and Physics, 69th Edition, 1989 CRC Press, pg. D-194).... Post leach-test solid samples should be analyzed for mercury depletion to confirm mercury content change.	MERC04
16774	Post-test sample analysis were not conducted to determine the "depletion" of constituents or the degree of reactive sulfide consumed during the leach testing, as provided for in the test protocol. The need for this is especially true for the reactive components of the solids to validate the extent of the reaction process that occurred during the time period of the tests, and to confirm possible mechanisms of dissolution. Measurements of chemical oxygen demand on the solids before and after the leach testing should be done to determine the degree of reactive sulfide "depletion." Without actual measurements of post-test solids indicating the degree of element "depletion," no time predictions can be made. (SRK 2007b, pg 97).	WR001, WR025, WR034
16777	The "humidity test" leaching chamber conditions simulate rock pile air-rain exposures, and do not simulate in-lake or in-ground saturated conditions. Because of this the results are "procedure specific" and not meaningful other than qualitative predictions... None of the leach-testing solid sample conditions impose anoxic conditions or biotic exposure expected to be present in the East-pit disposal volume, or in the West-pit lake under probable stratified conditions (Aquatic Chemistry W. Stumm & J. Morgan, 3rd Ed., Wiley-Interscience 1996, 1022 pp.)	WR002, WR034, WR173

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gary Glass (43015)	
16778	Assessments for impacts of mercury emissions are understated because localwashout and dry deposition uptake due to foliar uptake by plants and trees seemingly were not considered...The original estimate of emissions understated the amount of mercury in both the total mass of rock being mined and the amounts processed.	MERC17
16779	Measurements of sulfide reactivity including chemical oxygen demand are mostly missing from the characterization studies and leachate studies used for impact analyses. Sulfide sulfur is the single most abundant reactive constituent, millions of tons, and should be evaluated from this perspective. Sulfide sulfur reactivity influences most all of the dissolution processes that can cause environmental concern and harm. Yet no measures of reactivity have been elevated to a "constituent of interest." Sulfide sulfur reacts with oxygen in air producing sulfuric acid which mobilizes metals to toxic concentrations and can adversely affect fish and aquatic life.	WR060
16782	Metals/Metaloids also omitted Selenium, Manganese, and Iron, all of whichplay important rolls in assessing toxic exposure and responses of the proposed project, and should also be included in the significant "Constituents of Interest."	WR204
16783	Hazardous Substances and Hazardous Waste Generation. These omittedconstituents of interest are conspicuous by their absence in chapter one; denied in section 4.2.13, but admitted to in section 5.2.13. There is no specific approved disposal site identified for the permanent disposal of hazardous wastes generated as described in section 5.2.13. Clearly this is a major omission and must be corrected in detail for each and every hazardous waste created. Hazardous Wastes are omitted as a primary focus and must be added because of high levels of toxic metals and cancer causing materials present in the ore, tailings, and waste rock, including mineral fibers, dust containing high levels of nickel, chromium, and arsenic exceeding levels mandated protective controls.	HAZ03
16784	The existing LTVSMC Tailings Basin is an important component of theproposed project and should be identified as a significant constituent of interest for several important reasons:...the known hazards from toxic dust generated from moving and building dams from LTVSMC tailings which are known to contain hazardous asbestiform mineral fibers should be avoided,	PD10
16785	The potential future recovery of residual mineral resources from NorthMet tailings must be protected and maintained for re-processing to recover residual metals expected to be in the tailings (Ni, 510; Cu, 547; Cr, 310; Zn, 548; Mn, 1400; all ppm), uncontaminated by mixing with LTVSMC tailings. NorthMet tailings require a more secure and leak-proof basin, and should not be located in an area of uncertain dam stability or where aquifers are connected or at risk. The NorthMet tailings basins should be kept isolated intheir own specifically designed enclosure to assure all possible future acid and toxic generation of sulfuric acid and resultant metal mobilization including gaseous emissions are permanently captured to prevent any possible exposure outside of secured containment areas. Other safer, proper, more controllable and less hazardous options must be found and evaluated.	ALT10
16786	Mining 355 millions of rock in 300.000 ton blocks, blasting through layers of minerals and non-minerals with explosives using an open pit approach will undoubtedly mix small amounts of high sulfide inclusions with rock categorized as "waste." Tests of mixtures of small amounts reactive minerals with waste rock were not done but the expectation is that small quantities of reactive minerals will dominate and determine the chemistry of the pore water, and result in higher than expected metal and acid concentrations in, and from, the waste rock storage areas than are predicted from tests of lower reactivity rocks. The resultant drainage and runoff must be completely collected and treated everywhere mined reactive solids are deposited and stored exposed to air and precipitation, including areas where dust will collect along the haul roads and tracks. Tests show reactive sulfides are capable of acid formation for centuries(SRK 2007b, pg 97) and must be treated with appropriate caution to prevent structural and environmental damage by minimizing any possibility of exposure.	PD15
<b>Sender Name (Submission ID)</b>	Gary H Johnson (16241)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gary H Johnson (16241)		
10316	I believe we should demand more accountability from PolyMet before approving the mine.	FIN01
<b>Sender Name (Submission ID)</b> Gary Horning (22374)		
3422	the state should realize that PolyMet will hire the best attorneys available to negotiate clean up and water treatment costs. So should the state. If we simply rely on DNR regulators, we will lose. We need to go outside and hire very aggressive and skilled negotiators that will watch out for the taxpayer.	FIN09, FIN10, FIN13
<b>Sender Name (Submission ID)</b> Gary Huss (43450)		
15711	Northeastern Minnesota, and the BWCAW in particular contain some of the greatest natural places not only in Minnesota, but in the entire nation. Clean air, beautiful forests, and magnificent lakes and streams with high water quality are why people live in this state and why countless numbers of people want to visit here.	WILD02
15712	People don't visit Minnesota and spend their tourist dollars so that they can see how wonderful the open-pit mines are. ... The NorthMet deposits are located on National Forest System (NFS) lands. NFS land by definition is co-owned by all of the people of the USA, not just Minnesotans. Therefore, this is a decision that can not exclude what is in the best interests of ALL stakeholders involved (not just the less than 2000 people of northeast MN that might get jobs).	SO02
15713	According to the NorthMet Supplemental Draft Environmental Impact Statement (SDEIS) 'it is uncertain how long the NorthMet Project Proposed Action would require water treatment, but it is expected to be a very long time'. The 'models' estimate that the water at the mine site will have to be mechanically treated for a minimum of 200 years and at the plant site for a minimum of 500 years (of which you will not be demanding the money to pay for the 500 years of water treatment up front and placed into an escrow account prior to starting the project).	WR035, WR036
15714	Your number one priority for all of the stakeholders in the state of Minnesota should be to protect the high quality forests, air and magnificent water resources of this region and state. What you are proposing to do is to sell out these things out for a minute percentage of the population of this state for a meager 2000 jobs. The estimated 2013 population in Minnesota is 5,420,380. That is .0004 of the jobs in the state.	SO06
15715	On 3/12/2014, the MPCA was supposed to recommend new standards for sulfate emissions for the protection of the wild rice crop in Minnesota. ... But, they stated that until they analyze the actual data more thoroughly and more scientists look at it they aren't willing to make any conclusions or set any new standards at this time.	WR164
<b>Sender Name (Submission ID)</b> Gary Johnson (43719)		
11940	The PolyMet mine will provide a few good jobs for 20 years, or so, and then it will leave behind 500 years of devastation. It would be impossible to escrow enough money to deal with that aftermath.	FIN10
15092	it would be absolute insanity to permit something which will leave behind such a huge need for toxic cleanup. Not to mention all the issues that are more important than money--such as the health issues this mine will cause in the while it's in operation.	HU03
<b>Sender Name (Submission ID)</b> Gary Maciejewski (20075)		
1708	I believe that any sulfide mining in Northeastern Minnesota will not only destroy surface [water] in the area including Lake Superior, but it will also destroy much of the ground water in that area.	WR115

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gary Maciejewski (20075)		
1721	It seems very foolish to put at risk thousands of jobs related to the recreational economy including all the related jobs for a few hundred temporary jobs provided by the sulfide mining project.	SO01
1722	The Polymet mine will require over \$500,000,000 of reclamation treatment at the Plant Site and over \$200,000,000 at the Mine Site... Polymet should be required to set aside at a minimum the above mentioned amount of funds or no mining permit should be issued.	FIN05
1724	Inaccurate pre-mining characterization and interpretation often results in a failure to predict impacts to water quality and aquatic life.	WR023, WR071
1725	The word "Moose" does not appear at all in the SDEIS cumulative effects analysis, despite consistent concerns raised by tribal cooperating agency staff to co-lead agency staff during the environmental review process. As of August 19, 2013, moose are now listed as a MNDNR species of concern.	WI01
15007	many people have retired in Northeastern Minnesota because of the pristine surface water including good ground water for their wells and the related recreational opportunities. Thousands of more jobs have been created in many areas that are the result of numerous people retiring or having a cabin in Northeastern Minnesota.	SO01
15008	MN Rule 6132.3200 does not allow perpetual treatment: "To receive a permit to mine, the permittee must be able to close the mine in such a way that it is stable, free of hazards, minimizes hydrologic impact and release of substances, and is maintenance free."	PER04
15010	Heavy metal leaching is one of the greatest environmental liabilities associated with mining, especially in pristine environments like the Project mine site, that have economically and ecologically valuable natural resources (Reclamation Research Group (Bozeman, MT) for USFWS Anchorage, Alaska, "Acid Mine Drainage and Effects on Fish Health and Ecology: A Review" (2004), Ex. G.)	SO01
<b>Sender Name (Submission ID)</b> Gary Markfort (38207)		
13694	This mine threatens our most important resource, fresh water!	WR195
13696	To often we hold the company responsible, but companies have an automatic out, they change leadership, they go bankrupt, they just cease to exist. We need to hold the individual's responsible and throw away the corporate veil.	FIN01
13697	More jobs will be lost in the end than are gained by this mine.	SO01
<b>Sender Name (Submission ID)</b> Gary Robinson (54750)		
19160	Our water is the areas crown jewel. We cannot take this chance of harming it.	WR195
19162	Let us protect our water and land not just for ourselves and our children but for the fish and loons.	AQ05
<b>Sender Name (Submission ID)</b> Gary Zarling (16206)		
9824	approval for this mine should only be considered for a safe ore extraction process and a different waste treatment process that would render the waste materials inert so there is no need for ongoing maintenance of water treatment systems.	ALT09, ALT13
<b>Sender Name (Submission ID)</b> Gavin Danfelt-Martin (21383)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gavin Danfelt-Martin (21383)		
1097	even though the mining will create jobs that doesn't mean that our workers should be subjected to making our groundwater less drinkable. Money and economy are important but at what price?	SO01, WR041, WR115
3433	I believe even though the mining will create jobs that doesn't mean that our workers should be subjected to making our groundwater less drinkable.	SO01
<b>Sender Name (Submission ID)</b> Gay Trachsel (6085)		
1150	I do not see any reference to health risjs to mine workers and surrounding communities to lifetime exposures. Please include in the SDEIS the risk.... For at least 70 years...not 30 years as the SDEIS p 5-4210426.	HU04
1151	...the idea that this mine can be 99% sure the seepage will be contained and decontaminated and will flow in a certain direction....The SDEIS needs to prepare a statement with an alternative water model and the impact of the seepage that will most likely occur and what contaminants will be in this seepage.	WR017, WR018, WR189
1152	300 jobs for 20 years is not a good trade for 500 years of irreversible water contamination.	SO01
2412	I do not see any reference to the major health risks to mining districts and surrounding communities to lifetime exposures. Please, I ask you to include in the SDEIS the risk for workers and the surrounding communities for at least 70 years, as Minnesota uses for guidelines, not for 35 years, as the SDEIS does on Page 5421-426.	HU01
2413	Also, the projected healthcare costs to the State of Minnesota should be included in this statement and they are not.	SO04
2414	the idea that this mine can be 99 percent sure that seepage will be contained and decontaminated and will flow in a certain direction, north, is not a fact, but it is an assumption. The SDEIS needs to prepare a statement with alternative water models and the impact of the seepage that most likely will occur and what contaminants will be in the seepage.	WR019, WR022, WR060, WR089
2415	This mine is an experiment. The material that is presented in this SDEIS has never occurred in copper-nickel mining anywhere else and it is imperative that alternatives will be looked at that will protect the streams that feed the three watersheds.	WR023
2416	300 jobs for 20 years is not a good trade for 500 years of irreversible water contamination.	SO01
<b>Sender Name (Submission ID)</b> Gayathri Ramanathan (38605)		
14061	I am very concerned about 1)Mercury pollution besides others like manganese, lead and aluminum in water and the fish population	MERC02
14062	I am very concerned about ... 2) air pollution resulting from all the mining-related activities - diesel, asbestos-like fibers, nickel and other particulates which are carcinogenic.	AIR11
<b>Sender Name (Submission ID)</b> Gayl Gustafson (42506)		
15398	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gayle VanGuilder (43737)		
11780	I also believe from an economic standpoint, that expediting the current processes so Polymet could begin construction immediately would bring a desperately needed, immediate economic boost to the Iron Range....	SO10
15088	I have reviewed the SDEIS for the Polymet Project, and fully approve of the proposed processes and mitigation systems as well as the science used in designing them, and ultimately constructing them.	PD28
<b>Sender Name (Submission ID)</b> Gene (3437)		
212	The assurance money that is supposed to be set aside to clear up the pollution and damage caused by mining, won't be there for pollution clean up and restoration of the pristine treasure. Like the tobacco settlement money that was for stop smoking campaigns and to help people quit smoking, the legislature will use that assurance money for other purposes.	FIN08
647	How will they even start to clean up the pollution this will cause to the ground water?	WR090
648	Like the tobacco settlement money that was for stop smoking campaigns and to help people quit smoking, the legislature will use that assurance money for other purposes.	FIN08
<b>Sender Name (Submission ID)</b> Gene Betts (18091)		
3222	One of the other reasons I think PolyMet will do this is because they're going to spend between \$400 million and \$500 million before they make a nickel. If they don't do their environmental work, they will be shut down and somebody's going to lose \$400 million or someplace along that.	NEPA16
13908	think it's really important to not just look at the environmental impact statement for what it is. It's really important to look at the regulatory agencies that are going to enforce what PolyMet says it's going to do. Because I truthfully don't trust PolyMet...But I do trust these regulatory organizations.	NEPA16
13909	So I support PolyMet. I support their good jobs. Part of the quality of life in this area is good jobs. Good paying jobs. Part of the tourist industry survives because I'm here in the winter to pay for going to the restaurant and going to those other places.	SO10
<b>Sender Name (Submission ID)</b> Gene Champagne (45593)		
12829	As a Special Education Teacher and Consultant I am keenly aware of the link between heavy metals and learning difficulties in children. I am also aware of the increased risk of cancer from living in the mining ranges of the Upper Great Lakes / Lake Superior Region. We cannot afford to recklessly go forward for a quick economic fix that will not only cost millions and possibly billions of dollars down the road in remedial education and menial job skill training due to health impacts on the central nervous system.	HU03
15898	PLEASE, conduct a Health Impact Assessment before moving forward with this or similar future projects. Best practices net best results.	HU01
<b>Sender Name (Submission ID)</b> Gene Christenson (39260)		
5510	There is no real need, except profit motive, to create tailing ponds that need decades to treat. Why isn't the water treated in real time like other industries? Why are the tailings not put to beneficial use at some other location instead of creating an environmental nightmare that everyone knows PolyMet will eventually walk away from? If proper operations are not financially viable for PolyMet then they should not be doing this project.	NEPA01, WR037

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Gene Fowler (46418)		
8937	Water combines with the sulfides to produce sulfuric acid. Large quantities of sulfuric acid can not be contained over long periods of time. That is an indisputable fact and all one has to know to reject PolyMet's permit application. It doesn't matter what is in their Environment Impact Statement - it is all smoke and mirrors to maintain the fiction that copper mining can be done environmentally safely. It can't.	PD01
8947	The pdf file for PolyMet's annual report can be found here: <a href="http://www.polymetmining.com/#">http://www.polymetmining.com/#</a>	REF01
16115	There has never been a copper mine anywhere in the world, ever, in any environment other than a total desert, that did not leach sulfuric acid into the groundwater. It has never been done and can not be done.	WR023
16116	Minnesota should ban all copper/nickel/sulfide mining in the state unless and until it has been proven to be environmentally safe somewhere else. We should not be wasting time and money evaluating meaningless Environment Impact Statements. Meaningless, because they are offered in support of something that can not be done.	PER25
16117	More specific to PolyMet, why would one ever consider granting a mining permit to a company which has no competency in mining?	PER35
16118	The long term environmental damage that will occur far outweighs the whatever benefits copper/nickel mining brings to the area in terms of jobs and tax revenues.	SO01
<b>Sender Name (Submission ID)</b> Gene Smith (38909)		
5501	The proposed mine poses unacceptable risks to our waters and communities. I ask that the comment period be extended to 180 days, and I support the No Action Alternative.	GT14
<b>Sender Name (Submission ID)</b> Geoff Lynn (15975)		
13777	While jobs and the economy are important, resource extraction provides temporary benefits, typically at long term cost to the environment and to many who will never benefit from the economic impact.	SO01
<b>Sender Name (Submission ID)</b> Geoffrey Gates (18338)		
2521	This [proposed action] has a toxic waste, which has to be cared for almost as long as this continent has been around.	PD01
<b>Sender Name (Submission ID)</b> george crolick (43222)		
15824	environment is worth more than economic benefits.	SO01
<b>Sender Name (Submission ID)</b> George Halvorson (6285)		
10576	Don't put your faith in PolyMet's willingness or ability to satisfy future claims in the event that something goes wrong. A brief survey of pollution litigation should inform you that even where states are able to claw back compensation for environmental pollution, they spend an enormous amount of money doing so and the return rarely reflects the damage done.	FIN01
<b>Sender Name (Submission ID)</b> George Lah (6601)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	George Lah (6601)	
1088	Polymet can and will provide essential metals to the global economy and will do so in an environmentally conscious fashion.	SO10
<b>Sender Name (Submission ID)</b>	George R. Dunn (42992)	
8981	The shortened public comment period should be extended to at least the customary length of time... Information has come out since the release of the draft EIS calling into question issues of hydrology assumptions, effectiveness of the reverse osmosis process, and the plan for future water treatment. These issues are of such significance that meaningful public input can only be achieved through an extension of the current comment deadline.	NEPA07
15220	The applicant's failure to explain the plan for long-term water treatment is a fatal defect in the proposal...all parties agree that water treatment will be needed for essentially an indefinite period of time (e.g., 500+ years). It is sobering to think that the State of Minnesota would even contemplate relying on a corporation to treat water for 500+ years in connection with a mining project that is scheduled to last 20 years.	COE04
15221	...there are no legally binding mechanisms to get a commitment from PolyMet ... to treat the water for the length of time that will be necessary. The inevitable conclusion is that the financial responsibility for treating the impacted water will fall on the shoulders of the taxpayers of the State of Minnesota	FIN10
15222	...the EIS fails to outline what sort of financial assurances and security PolyMet would be required to post in order to go forward with the project. I would submit that there are no financial assurances or security that PolyMet could offer that could possibly balance out the future cost of water treatment and, more importantly, the future cost of remediation that would be required in the case of an environmental disaster.	FIN01
15223	...independent experts call into question the effectiveness of the reverse osmosis process proposed by the applicant. The technology... for water purification is untested on the type of scale that is proposed for this project. Questions have arisen regarding the ability of the applicant to ramp up the technology to the level that would be necessary to process the vast quantities of water that will need to be treated. ... As it stands now, the information provided by the application is insufficient to support the EIS.	WR143
15225	...The EIS fails to explain how the project will meet the statutory requirement regarding wild rice water quality standards... wild rice is symbolic of our water quality and the health of aquatic ecosystems and riparian communities.	VEG04, WR163
15226	Minnesota statute requires the practical alternatives must be vigorously explored and objectively evaluated. Alternatives to the proposed land exchange and consideration of the possibility of underground mining as opposed to open pit mining were not explored in the EIS.	ALT01, ALT21
15227	The EIS is incomplete in its representation as to who is really going to run the proposed project and how it will be done....PolyMet has never operated a mine before and it is totally dependent on its largest investor, Glencore, for money and industry advice. ... Glencore has a history of causing environmental catastrophes around the world	PER02
15228	The PolyMet proposal will ... add unwanted mercury to the ecosystem. Already 1 in 10 Minnesota newborns in the Lake Superior basin are born with unsafe levels of mercury in their blood, according to the Minnesota Department of Health.	HU03
15229	The coal that will be used to power this very energy intensive proposal is a dirty energy source from the standpoint of carbon pollution, mercury emissions, particulate emissions, and acid rain. The consequences of the combined effect of all of this additional pollution have not been adequately considered in the EIS.	AIR07

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> George R. Dunn (42992)		
15230	PolyMet’s proposal will degrade over a thousand acres of high-quality wetlands... [in] the 100-Mile Swamp. It is a critical habitat to both plants and animals. ...The EIS does not recognize the fact that the 100-Mile Swamp flows into the Boundary Waters and, therefore, is another example of the inadequate nature of the EIS.	WET19, WR024, WR080, WR081, WR111, WR167
15231	The failure of the EIS to consider the cumulative effect of the proposed project and the many other projects on the drawing board makes the EIS inadequate.... The only way the state can make effective decisions regarding the viability and safety of sulfite mining is to ... calculate the cumulative effects of all the proposed projects.	CU02
15232	Sulfite mining has never successfully been done anywhere in the world without causing widespread pollution in the immediate ecosystems...Minnesota should not even be considering permitting activities such as this until after it has been proven safe at other locations that have similar environmental characteristics. ...Please do not make northern Minnesota, the Lake Superior watershed, and the Boundary Waters watershed guinea pigs	PD26, WR023
15233	Minnesota statutes require that a closed mine site needs to be “maintenance free.” PolyMet cannot satisfy this statutory obligation. Accordingly, under Minnesota law this proposal must be rejected...The statute was enacted for good reason – the people of Minnesota should not have to clean up mines exploited and abandoned by corporations.	PER04
15234	The thought that Minnesota would endanger such fragile ecosystems a... with the promise of 20 years of a limited number of jobs I think is an example of misplaced priorities. We need sustainable economic development in northeast Minnesota...the state would be much better served in attempting to diversify the economy away from another type of mining.	SO01
<b>Sender Name (Submission ID)</b> George Rounds (28780)		
10934	It would be criminal, in my opinion, to permit any mining of resources in the region that would contaminate, and eventually kill, this national treasure, So please do not allow the PolyMet Mining Corp. NorthMet mining project Supplemental to operate anywhere near [the Boundary Waters Area].	WILD02
<b>Sender Name (Submission ID)</b> George W Miller (54558)		
18964	PolyMet Mining Corp a Canadian Co has never actually operated a mine.(...) Do not permit the damage which will take over 2000 years and for 20 years of mining?	SO01
<b>Sender Name (Submission ID)</b> George Withbroe (43048)		
12255	It appears that this mine will be a major source of pollution, particularly to water. How can we develop a mine which will be a major source of toxic pollutants for hundreds of years	WR115
12256	I doubt that a mining company whose primary goal is financial gain willbe as careful as is required when dealing with a product that offers so manyopportunities to produce destructive, long lasting, toxic pollutants.	SO02
17494	How can we develop a mine... which will has a high probability of becoming afinancial burden to the taxpayers for decades after the owners of the mine have made their profits and left the state.	FIN10
<b>Sender Name (Submission ID)</b> George Wollenburg (31663)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> George Wollenburg (31663)		
13084	It is short sighted to risk long term damage to a pristine area that presently is heavy into tourism.	SO02
<b>Sender Name (Submission ID)</b> George Young (42915)		
9520	PolyMet’s NorthMet Project has already provided a positive economic impact to the area and has given many communities hope as a source of good jobs.	SO10
9526	The combination of Minnesota’s regulations and PolyMet’s commitment to mining in a way that protects the environment will serve as a template for sustainable, ethical and successful mining practices in Minnesota.	PER34
9529	PolyMet has put a solid project proposal in place and it has been reviewed and modified by scientists and environmental specialists working for both the State of Minnesota and the Federal Government. The NorthMet Project is sound and has mitigation measures in place to address the Project’s environmental impact.	NEPA16
9531	PolyMet has addressed all potential issues associated with the Supplemental Draft EIS, including all of those brought forward by State and Federal officials, employees and their consultants throughout the process.	NEPA16
9532	PolyMet has been working with regulators for nearly 10 years to ensure compliance.	PER34
9533	Any issues or concerns that were discovered during the EIS have been addressed in the Supplemental Draft EIS.	NEPA16
9536	The NorthMet Project will bring high-paying jobs to an area of the State that needs the long term work and continued economic development. The NorthMet Project will be a significant contributor to the economic impact of northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Georgia Anderson (57930)		
19831	This mine abuts the Boundary Area, which is known and appreciated worldwide	WILD02
<b>Sender Name (Submission ID)</b> georgiana anderson (41795)		
3285	PolyMet is going to put up enough money to deal with this degradation for the next 500 years?I doubt that that can be accomplished.	FIN01
3286	Wild Rice requires clean water and sulfide will kill the rice if it invades the Wild Rice wetlands.	WR156
3287	The Boundary Waters are visited by Americans and Europeans.This tourism brings money to the state.	SO02
3288	The Environmental Review process needs to be extended. The period allowed is too short.	NEPA07
3289	I have heard that the EPA gave the PolyMet EIS a failing grade (...) The permit should be denied.	PER35
10173	The very idea that you could get PolyMet to be responsible in 500 years for the degradation that will follow that mine, is ridiculous and obscene.	FIN01
10174	The areas that support Wild Rice culture will be affected and may never be reversed if sulfide is allowed to invade those Wild Rice wetlands.	VEG04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> georgiana anderson (41795)		
10175	Sulfide mining will have other more insidious results,Sulfuric Acid.	HAZ03
10176	There is another treasure that will be threatened [by NorthMet],a national park, that draws in people from all over the country and Europe,The Boundary Waters.	WILD02
10178	Those [Boundary Waters] are vulnerable to acid drainage and toxic metal as are indeed,the Wild Rice growing areas, and the water supply for communities around the proposed mine.	WR111, WR156, WR158
10179	The Environmental Review process should be lengthened.	NEPA07
11901	we will lose a uniquely Minnesota treasure not to mention the damage that the Native Americans would sustain to their history and legacy.	SO02
11902	jobs.Well, lot of jobs will be created for people cleaning up this mess forever and ever.Is that the way we want o develop jobs?	SO01
18559	The areas that support Wild Rice culture will be affected and may never be reversed if sulfide is allowed to invade those Wild Rice wetlands. So we will lose a uniquely Minnesota treasure not to mention the damage that the NativeAmericans would sustain to their history and legacy.	CR01
18563	There is another treasure that will be threatened, a national parkthat draws in people from all over the country and Europe, TheBoundary Waters. Those lake are vulnerable.	WR111
18565	The Environmental Review process should be lengthened. This is toocomplicated an issue to be hurried along. You need to take the time toevaluate.	NEPA06
18571	There are very few pros to this plan. Only one that I canthink of and that is jobs. Well, lot of jobs will be created for peoplecleaning up this mess forever and ever. Is that the way we want todevelop jobs?! hardly think so.	SO02
18575	Why did the EPA give the Poly Met EISA a failing grade? Why is Minnesota not paying attention? Why is theMinnesota Environmental Review board complicit in this process?	NEPA14
<b>Sender Name (Submission ID)</b> Gerald Brown (19915)		
1506	I support the PolyMet Project. My concerns for environmental protection have been satisfied.	NEPA16
<b>Sender Name (Submission ID)</b> Gerald Casey (54118)		
15980	I believe they will leave ground water polluted for a millenium and the state will be stuck with the cleanup bill.	WR195
<b>Sender Name (Submission ID)</b> Gerald Erickson (54119)		
15981	the environmental review process has NOT been sound and thorough.	NEPA09
15982	The state and federal regulators will NOT ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all state and federal regulations.	PER06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gerald Krueger (54125)		
15995	I believe the environmental review process has NOT been sound and thorough.	NEPA09
15996	The state and federal regulators will NOT ensure that PolyMet's project design, and its controls and measures will NOT address potential environmental impacts and will NOT meet all state and federal regulations.	PER06
<b>Sender Name (Submission ID)</b> Gerald L Sundberg (57210)		
17139	Until it can be proven that no run off will be done, I'd say no to mining.	PER18
17140	We need these minerals and the jobs they create, but at whose expense? Either fix the problem or chance our life styles.	SO01
<b>Sender Name (Submission ID)</b> Gerald Robert Arnebeck (54886)		
18793	Copper nickel sulfide mining as proposed is too dangerous to our beautiful N.E. MN water quality.	WR195
<b>Sender Name (Submission ID)</b> Gerald S Stiff (42734)		
14408	Recent Minnesota Public Radio discussions explained the potential for release of sulfide chemicals as a result of mining these metals. These MPR discussions clarified the "500 year" estimate for possible environmental danger. My second source is a retired chemist and friend who points to continuing sulfide and arsenic pollution from old mines (old technology) in South Dakota and Arizona.	PD01
<b>Sender Name (Submission ID)</b> Geraldine Davidson (57349)		
18383	They said that this pollution being created is a new type of pollution to this area. According to the studies, they say it's in compliance. My concern is the accumulation or the cumulative effect of all of these different pollutions that are in compliance, but added together, what types of health complications are there? Especially since it is new, they just probably don't know yet.	CU15
18384	There is a study out of Canada that methylmercury, a byproduct of mining, is in our streams. They have now made a link that it suppresses your body's natural ability to break down plaque. And so now they are finding that methylmercury is contributing to cardiovascular disease because of the plaque not being able to be broken down. So what responsibility will the company have when they do make this link in the future, 50 years from now, when they make a link of the different health problems that are created by this new pollution?	MERC03
18388	The mineral rights, how much are they paying? The mineral rights that they are mining? Because they are going to be destroying that land. How much are they going to be making in the open market versus how many union jobs will there be for the total number of jobs that are created? How many of those are going to be union wages, with benefits, compared to their profits?	SO04
18390	My concern, too, is the quality of the air. They claim that they are going to be cleaning it, but are they going to have natural ways to clean up the land? Other than the usual methods of pollution control, such as probably having filters and that kind of stuff. But what other efforts or measures will they take to help clean the air and clean the water from all of this? Like planting more trees.	AIR01

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Geraldine Davidson (57349)

18391 I know they say they will have containment measures in place, in reservoirs, and all of their safety containment, but who is responsible 50 years from now when it breaks down and all of that pollution is brought out into the environment? Who is going to be paying for that? Who is going to be paying for the health complications that people just don't know are there? Like mesothelioma, they didn't know about it back when those minors were working. Now, is the mining company paying for their health or is it the government; us, the taxpayers? FIN01, FIN10

18392 some of the land that they want to mine is next to the Boundary Waters Canoe Area. I oppose this Land Exchange because it will ruin that pristine area. WILD02

**Sender Name (Submission ID)**    geri (44087)

14911 Take a look at the Cuyuna Iron Range in Crosby MN which is now a state recreation area. The mining started here in the early 1900 and ended in 1985, and is now a state recreation area with Trout fishing, boating, canoeing, and Mountain Biking. If the mining industry could do there job and leave us this wonderful rec area with old and outdated technology just think what we can do today. SO10

**Sender Name (Submission ID)**    geri Jensen (20205)

12467 As a major retirement destination with an ever increasing tourism industry northern Minnesota depends on a sustained natural environment with exceptional fresh water quality which is in direct conflict with the proposed mining. Creating the mine itself would first destroy thousands of acres of living plant and animal life and jeopardize the fresh water system which supports all life. There is no acceptable land trade or replacement of such destroyed communities. SO02, VEG10, WI13

13948 PolyMet would have a few decades at best and would begin and end leaving a wake of destruction. There is no proven, safe and lasting containment method nor treatment, and there are always mishaps, accidents, acts of God, and mistakes made. The cost of any is far greater than the benefits. Money can't fix it. SO01

**Sender Name (Submission ID)**    Geri Wellems (39317)

8045 Our environment is more important than jobs. SO02

8047 the mining companies will take what they want and leave us with environmental damage that will be with us for eternity. FIN01

**Sender Name (Submission ID)**    Germain Walseth (45182)

8885 The mining companies WILL pollute our water, air and land. GEN03

8982 And mining companies will get out of paying for all the damage they have done. FIN01

**Sender Name (Submission ID)**    Gerri Williams (18330)

2402 It is very troubling the proposed mine located on one of the state's most sensitive and environmental rich areas of wetlands is an open-pit mine. PolyMet (inaudible) natural resources has rejected the approach of an underground mine ALT01

2403 The mine site itself would destroy 913 acres of wetlands and endanger more than 7,000 plus acres of surrounding wetlands. WET24

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gerri Williams (18330)	
12404	it is a given the open-pit mining method that PolyMet proposes will harm wetlands. I ask the co-leading agencies to take into account that just five years ago the citizens of this state voluntarily agreed to raise their own taxes to fund a 25-year effort to enhance, protect, and restore water quality in Minnesota. Preserving wetlands must be considered crucial to this goal.	WET24
8535	The proposed Northmet mine site itself destroys 913 acres of wetlands and endangers 7,000 plus acres of surrounding wetlands. But the SDEIS suggests that Poly Met will have to replace only 27 acres that suffer this loss. Another resource of hunting and sustenance that cannot be put to productive use. Gone- or at least impaired - possibly forever	WET01, WET04
8535	The proposed Northmet mine site itself destroys 913 acres of wetlands and endangers 7,000 plus acres of surrounding wetlands. But the SDEIS suggests that Poly Met will have to replace only 27 acres that suffer this loss. Another resource of hunting and sustenance that cannot be put to productive use. Gone- or at least impaired - possibly forever	CU01, CU18, WET01
8537	They should take into account that just 5 years ago the citizens of this state voluntarily agreed to raise their own taxes to fund a 25-year effort to "enhance, protect, and restore" water quality in Minnesota. A sulfide mining project of the complexity, magnitude and duration proposed puts this goal at risk and is NOT in the public interest. Therefore, I respectfully submit that unless and until all the pertinent deficiencies and omissions in the SDEIS have been fully addressed the wetlands destruction permit (that is, Section 404), for the Northmet project be denied.	PER35, WET14
8537	They should take into account that just 5 years ago the citizens of this state voluntarily agreed to raise their own taxes to fund a 25-year effort to "enhance, protect, and restore" water quality in Minnesota. Preserving wetlands must be considered crucial to this goal. A sulfide mining project of the complexity, magnitude and duration proposed puts this goal at risk and is NOT in the public interest. Therefore, I respectfully submit that unless and until all the pertinent deficiencies and omissions in the SDEIS have been fully addressed the wetlands destruction permit (that is, Section 404), for the Northmet project be denied.	PER35, WET14
12296	To me it comes down to the extensive – and potentially permanent – damage to wetlands, watersheds, animal habitat and human health that such a mine (like all other copper mines) would inflict. This is balanced against the possibility of a handful of comparatively short-term jobs and the efficacy of an untested mining conglomerate operate to avoid this damage.	SO01
12298	reverse osmosis and other improved technologies remain unproven at the scale and duration required for industrial mining. In the case of Minnesota, copper mining situated in sensitive wetlands would add to the potential disaster.	WET24, WR112, WR143
13906	What I would add is that we really have to accept what PolyMet says on faith, because PolyMet has never operated a copper mine before. That's right. A fledging untested company is going to experiment with the health and safety of our water as part of its learning curve.	PD23
14804	I recognize the benefits of the tools and technologies of modern life that are enabled by exploitation of natural resources, including that of mining. But having said that, the public interest demands that a mining operation must prove it is appropriate to the terrain and location and that it can minimize risk to the natural habitat and to human communities.	WI02
14804	I recognize the benefits of the tools and technologies of modern life that are enabled by exploitation of natural resources, including that of mining. But having said that, the public interest demands that a mining operation must prove it is appropriate to the terrain and location and that it can minimize risk to the natural habitat and to human communities.	WI02
18283	Wetlands cannot be "made whole" once they are impaired. They can, however, be damaged, altered, even erased in this method of sulfide mining. Reclamation can never fully restore their functions. This damage is PERMANENT.	WET05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gerri Williams (18330)		
18283	Wetlands cannot be "made whole" once they are impaired. They can, however, be damaged, altered, even erased in this method of sulfide mining. Reclamation can never fully restore their functions. This damage is PERMANENT.	WET05
18954	the proposed structures to contain toxic substances are inadequate. Fractures are already known to exist at the proposed Poly Met mine and plantsite would transport pollution. Blast vibrations would cause more rock fractures and permit further leaking.	PD07
18955	The EIS presents a fantasy world in which it operates in perpetual optimal conditions. It claims to be able to capture 99% of the seepage from its huge tailings pile, something no other known copper mine has achieved...Polymet has never operated a copper mine before. Its calculations are pure conjecture.	PD23
18956	it is a given that the mining method Polymet proposes will destroy wetlands. Just 5 years ago the citizens of this state voluntarily agreed to raise their owntaxes to fund a 25-year effort to "enhance, protect, and restore" water quality in Minnesota. Preserving wetlands and their crucial role in our northernecosystem/watershed must be considered crucial to this goal...A sulfide mining project of the complexity, magnitude and duration proposed puts this goal at risk and is NOT in the public interest.	WET24
19586	I have concluded that validity of the scientific projections of the project is deficient. The assumptions about the mine is based on the work of a consulting company, Barr Engineering, that was hired and paid for by Polymet. Where was the independent research and review of its findings?...The research carried out by the Great Lakes Indian Fish and Wildlife Commission, which is unfortunately segregated to an appendix of the SDEIS, contradicts the Barr conclusions and contains 18 major points of contention. It cites numerous points on which the conclusions are based on deficient modeling.It is unacceptable that the scientific findings of the Commission are not reflected in the body ofthe SDEIS.	NEPA12, NEPA15
19590	... it's clear that the NorthMet project would be very water intensive... But --how much water will be used? And for long will treatment continue? We're not told. Additionally, recent research has confirmed that the Polymet water use estimates were incorrect.	WR181, WR182
19591	Where, in this SDEIS, is the basic information about how much toxic wastewater is going to flow back and forth over 9 miles of pipes?	WR181, WR182
19592	what is extent of pollution in the waste rock piles and pits and tailings basin and the waste dump? Will the so-called mitigation measures address this adequately?	HAZ05
19593	the estimates on how long mitigation and monitoring protocols would have to be in place keeps morphing - from perpetuity, to 500 years, to an indeterminate amount of time. On what fact-basis were these shifting timelines calculated and recalibrated?	PD03
<b>Sender Name (Submission ID)</b> Gerrit Crouse (7135)		
471	1,000 acres of high-quality wetlands would be eliminated in the region, which has already lost many 1000s of acres of wetlands to iron ore & taconite mining.	WET24
472	The region of the proposed mine is now home to dramatically declning lynx & moose. The sdEIS vaguely acknowledges the mine would "adversely impact" 4,000 acres of wildlife habitat, which is critical lynx habitat. It barely mentions moose, except to acknowledge the mine "will affect moose individuals." Affect, as in extirpate.	WI01, WI02
473	Lakes & streams near & downstream of the mine site already violate state water-quality standards. To meet standards for sulfates, mercury, & other chemical poisons & pollutants, the sdEIS acknowledges PolyMet would need to mechanically treat its wastewater for 500 years. But it doesn't explain just how PolyMet can assure funds will be available for 100s of years after the mine has closed.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gerrit Crouse (7135)	
474	The proposed mine site is on Superior National Forest. The Forest Service recognizes that open-pit mines are prohibited here. But it is proposing to exchange these lands to allow the open-pit mine to proceed. It has provided no information to demonstrate that this is in the public interest.	LAN01
<b>Sender Name (Submission ID)</b>	Gerry Gingles (39745)	
7122	The Boundary Waters are a state and national treasure please don't sacrifice them for the almighty dollar.	WILD02
<b>Sender Name (Submission ID)</b>	Gerry Snyder (54635)	
18037	The fundamental issue for considering permits should not initially be jobs or environment issues, but the very basics: financial wherewithal, demonstrated success to implement large-scale projects, and the reputation of the applicant.	PER02
18037	The fundamental issue for considering permits should not initially be jobs or environment issues, but the very basics: financial wherewithal, demonstrated success to implement large-scale projects, and the reputation of the applicant.	PER02
18039	No other financial source is likely to provide the substantial capital PolyMet needs without Glencore's permission or guarantee. Glencore owns a significant portion of PolyMet's common stock, warrants, and debt. It has contracted for the first five years of PolyMet's production and has representation on PolyMet's Board of Directors and management.	FIN01
18039	No other financial source is likely to provide the substantial capital PolyMet needs without Glencore's permission or guarantee. Glencore owns a significant portion of PolyMet's common stock, warrants, and debt. It has contracted for the first five years of PolyMet's production and has representation on PolyMet's Board of Directors and management.	FIN01
18638	Minnesota's potential tax revenue may never materialize from PolyMet...Glencore can control the profit margins on PolyMet's copper production. Its copper's selling price can be minimized to the extent that PolyMet generates little, or no, taxable income, and revenue to Minnesota's is reduced or eliminated accordingly.	SO02
18662	The production of PolyMet's copper ore can be sold through Glencore's huge trading operations to one of Glencore's many controlled companies located in a low tax haven jurisdiction. The copper can then be resold at a higher market price to an end user in another country. This sequence would enable Glencore to generate a high net profit margin...[resulting in] higher after-tax profits for Glencore due to the absence or reduction of the tax payments to the State of Minnesota...A member firm of Grant Thornton International, a respected global accounting organization, ...[stated] that improper inter-company transactions by a Glencore subsidiary deprived one government of ...millions of dollars in lost revenue.	SO06
18670	The Governor, legislators, and agencies of the State of Minnesota should be held accountable for their fiduciary and trust responsibilities if they do not thoroughly investigate the legal, financial and reputation of PolyMet's parent company Glencore. The many red flags surrounding Glencore Xstrata's conduct must not be ignored	SO02
18989	PolyMet cannot provide realistic financial assurance as required under Minnesota State law.	FIN01
18989	PolyMet cannot provide realistic financial assurance as required under Minnesota State law.	FIN01
18990	It is irresponsible for the State to knowingly issue valuable permits to companies without the capacity, experience, or financial wherewithal to establish a viable mining operation or do not have the capability to deal with industrial or environmental accidents.	PER02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Gerry Snyder (54635)	
18990	It is irresponsible for the State to knowingly issue valuable permits to companies without the capacity, experience, or financial wherewithal to establish a viable mining operation or do not have the capability to deal with industrial or environmental accidents.	PER02
18991	However, Poly met's lack of financial wherewithal and the barriers to enforcement against Glencore eliminate any comfort that compensation will be available should these financial assurances turnout to be inadequate, or that monetary penalties could be enforced through .S. courts or by .S. regulators.	FIN01
18991	However, Poly met's lack of financial wherewithal and the barriers to enforcement against Glencore eliminate any comfort that compensation will be available should these financial assurances turnout to be inadequate, or that monetary penalties could be enforced through .S. courts or by .S. regulators.	FIN01
18992	The mining of copper potentially impinges on Minnesota's natural resources, infrastructure and human health.	HU02
18992	The mining of copper potentially impinges on Minnesota's natural resources, infrastructure and human health.	HU02
18993	PolyMet is not competent to receive sulfide mining permits. 1. It has no mining experience. 2. It does not have the financial capacity to start and develop a copper mine. 3. The present management does not have control of its future.	FIN01
18993	PolyMet is not competent to receive sulfide mining permits. 1. It has no mining experience. 2. It does not have the financial capacity to start and develop a copper mine. 3. The present management does not have control of its future.	FIN01
18994	Glencore Xstrata pic controls Poly Met. It holds PolyMefs present and future purse strings. This makes PolyMet's financial future uncertain. On its own, Poly Met will be hard pressed to even buy one multi-million dollar modern dump truck at the current rate it is burning through its present cash position. Perhaps more importantly, Glencore's control over PolyMefs operations calls into question PolyMet's ability to provide reliable testimony about how mining will be conducted under the required permits.	FIN01, PER02
18994	Glencore Xstrata pic controls Poly Met. It holds PolyMefs present and future purse strings. This makes PolyMet's financial future uncertain.	FIN01
18995	In reality, it is Glen core that is the beneficiary of the permits, not PolyMet, and therefore Glencore should be the applicant and be subject to legal recourse by the state of Minnesota for any failures to comply with the permits or other violations of law.	PER02
18995	In reality, it is Glen core that is the beneficiary of the permits, not PolyMet, and therefore Glencore should be the applicant and be subject to legal recourse by the state of Minnesota for any failures to comply with the permits or other violations of law.	PER02
19181	PolyMet is not competent to receive sulfide mining permits. 1. It has no mining experience. 2. It does not have the financial capacity to start and develop a copper mine. 3. The present management does not have control of its future.	PER02
19186	The fundamental issue for considering permits should not initially be jobs or environment issues, but the very basics: financial wherewithal, demonstrated success to implement large-scale projects, and the reputation of the applicant.	PER02
<b>Sender Name (Submission ID)</b>	Gerry Willmar Chamber of Commerce (54636)	
18032	Minnesota has a proud mining tradition that has created thousands of jobs and billions of dollars in economic activity for our residents. The North met project is a vital continuation of that heritage and will provide positive impacts not only for Northeastern Minnesota, but across the state as well.	SO10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Gerry Willmar Chamber of Commerce (54636)		
18033	Minnesota has a proven record of applying innovative approaches to mineral extraction. Our mining history has provided regulatory agencies with the expertise to vigilantly protect Northern Minnesota's precious and fragile natural splendors by enforcing some of the toughest mining regulations in the world. We understand the apprehension of some that this project will have consequences for the environment, but the rapid advances in technology and methods used in mining mitigate these risks. We have confidence that our state agencies have both the expertise and capacity necessary to ensure those consequences are mitigated.	PER34
<b>Sender Name (Submission ID)</b> Gib Ahlstrand (47507)		
17603	I completely agree with [my state representative's] concerns [regarding financial assurance] and urge that they be given serious consideration before this project is approved or even allowed to go ahead into the Permit to Mine phase.	FIN08
<b>Sender Name (Submission ID)</b> Gil Baldich (18356)		
2539	At the LTV tailings basin, manganese is far above Minnesota's health risk limit, but that is also expected to increase by 45 percent (phonetic)...Lead (phonetic) in drinking water is known to cause brain damage. Manganese can cause neurological damage and reduce IQ in children. (Reading.)	HU03
2540	The SDEIS must be redone to analyze any impact from the tailings basin groundwater of the wells my family and friends drink from. Why has there not been an analysis of the pollution of the drinking water of the Minnesota citizens just downstream from the tailings basin? What is protecting the water that my family and friends and daughter drink from year-round and day after day.	WR040, WR041, WR059, WR064, WR142
14640	I would like to start off by saying this is not a project, it is an experiment. It has never been done in Minnesota.	PD32
<b>Sender Name (Submission ID)</b> Giminon Nahgahnub (11597)		
2259	The most recent EIS is inadequate because it is based on flawed data regarding the water flow from the Partridge River on a magnitude of 3X.	WR003
2259	The most recent EIS is inadequate because it is based on flawed data regarding the water flow from the Partridge River on a magnitude of 3X.	WR003
<b>Sender Name (Submission ID)</b> Gina Everett (44868)		
8071	[The SDEIS] does not adequately look at reducing impacts to wetlands by considering underground mining vs. open pit mining.	ALT01, ALT06
8072	What evidence is there that the proposed treatment of contaminated water by reverse osmosis actually works on projects of this scale?	WR143
8073	The water treatment process is not specific enough. What are the plans for the toxic sludge generated by reverse osmosis? How is the reverse osmosis system guaranteed to keep up with the quantity and continuous supply of contaminated water?	WR143, WR145
8074	The proposed wetland reclamation and regeneration would not equal the high quality wetlands that the mine will destroy.	WET05
8075	What are the effects on human health, especially in the unborn and very young, of exposure to the pollutants emitted into the air and water, especially as these pollutants accumulate to higher levels?	AIR07

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gina Everett (44868)		
8076	What insurance is there against underground drinking water contamination and what procedures will be followed to clean up any contamination that occurs?	WR042
8077	As abundant clean water becomes more scarce world-wide and thus more valuable, this resource should be weighted higher for impact considerations the farther the timeline of impacts goes into the future.	NEPA03
8079	What are the health risks to employees who are exposed to sulfide mining conditions?	HU04
8082	What is the potential for soil contamination away from the mine site and what health risks are present for people who come into contact with this soil, especially for those growing their own food?	HU01
8083	The Superior National Forest is a national asset and the proposed land exchange is not adequate compensation for U.S. citizens.	LAN03
8084	How will the survival and reintroduction of rare species found in the disturbed wetlands be assured after mine closure?	WI01
8087	Adequate funding is not guaranteed in the event of any environmental accidents while the mine is still operating or for the extensive period of water treatment needed after the mine closes.	FIN01
<b>Sender Name (Submission ID)</b> Gina Holje (38539)		
9678	Any environmental impact assessment ... that fails to comprehensively analyze the issue of "financial assurance" in the context of addressing pollution remediation / treatment work for up to the 500-year period ...is a completely inadequate review.	FIN08
<b>Sender Name (Submission ID)</b> Gina McKenzie (5676)		
14324	PolyMet's proposed mine would result in unacceptable, irreversible environmental impacts and should be denied.	CU11
14326	Nearly 1,000 acres of high-quality wetlands would thus be destroyed in this region, which has already lost many thousands of acres of wetlands to iron ore and taconite mining.	WET24
14327	The SDEIS acknowledges that the mine would "adversely impact" over 4,000 acres of wildlife habitat -- much of which is critical lynx habitat. But the document barely mentions moose except to recognize that the mine "will affect moose individuals."	WI01, WI02
14384	a number of the lakes and streams near to and downstream of the mine site already exceed state standards. To meet water-quality standards for sulfates, mercury and other pollutants, the SDEIS acknowledges that PolyMet would need to mechanically treat its wastewater for at least 500 years. But the SDEIS fails to explain how PolyMet can provide financial assurance that the necessary funds will be available for hundreds of years after the mine has closed.	FIN01
14385	According to the EPA, hardrock mining is the country's most toxic industry, and 40 percent of our nation's Superfund sites are devoted to cleaning it up. How will PolyMet's mine be different? The SDEIS supplies no answers.	PD01
14386	the proposed mine site is on Superior National Forest, where the Forest Service recognizes that open-pit mines are prohibited. But instead of rejecting the mine or considering an underground mine alternative, the Forest Service is proposing to exchange these lands with PolyMet to allow the open-pit mine to proceed. The Forest Service has yet to provide the public with sufficient information concerning this proposed land exchange in order to demonstrate that it is in the public interest.	LAN01, LAN02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gina McKenzie (5676)		
14387	the SDEIS fails to demonstrate that the proposed PolyMet mine will comply with all environmental laws and that it will not result in unacceptable environmental impacts -- and so it should be rejected.	PER35
<b>Sender Name (Submission ID)</b> Ginner Ruddy (43062)		
11502	Please protect this incredible place [BWCA] by not supporting the PolyMet proposal.	WILD02
<b>Sender Name (Submission ID)</b> Ginny (43087)		
14803	Please get in with the permitting process and allow our area to gain hundreds of jobs so that our children can also live in this area. It shouldn't have to be just a retirement community or for tourism. Please put people to work.	SO10
<b>Sender Name (Submission ID)</b> Ginny Knapp (552)		
409	prevent acid mine drainage from polluting our waters	WR115
411	save us the huge future taxpayer costs of trying to cleanup the mess.	FIN01
<b>Sender Name (Submission ID)</b> glen helgeson (9797)		
293	Trading 200-500 years worth of mining pollution for only 20 years worth of jobs is irresponsible.	SO01
294	The EIS doesn't provide details on how PolyMet would pay for water treatment.	FIN01
295	Acid mine drainage could potentially seep into the fractured bedrock allowing contaminated water to seep through and reemerge outside the mine site.	WR010, WR012, WR029, WR173
1389	It doesn't provide details on how state officials can be sure the required financial guarantees will be there to adequately treat the water for centuries to come.	FIN01, FIN08
1392	No one knows if PolyMet will be able to capture all the contaminated water. Even though they plan to treat the water with a reverse osmosis process, they wont know for sure whether they can capture all the water at the mine site and at the tailings basin.	WR017, WR018
19909	Furthermore, they won't know enough about potential contaminants until PolyMet begins unearthing and monitoring their impact. It would be too late for the public to stop the project if this were to happen.	PD05
19910	Furthermore, treatment costs could exist forever...PolyMet environmental study is inconclusive on water treatment. The EIS only covers the 20-year plan and is only specific about how much area would be mined and how much waste would be generated. The EIS doesn't provide details on how PolyMet would pay for water treatment It doesn't provide details on how state officials can be sure the required financial guarantees will be there to adequately treat the water for centuries to come.The DNR and PolyMet is not really sure how long will water treatment will be needed. Even the PolyMet officials say it's very uncertain.	FIN01
20020	Trading 200-500 years worth of mining pollution for only 20 years worth of jobs is irresponsible...Do we really want to treat water pollution at a mine that has been closed for centuries just for 20 years of operations and 400 jobs?	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Glenn A Partick (42774)		
6714	To me, the environment and the supply of critical metals are the crucial keys to this project. However, a person cannot ignore the economic benefit of this project. The creation of jobs benefits this region, the state and the country.	SO10
<b>Sender Name (Submission ID)</b> glenn guntenspergen (20831)		
1854	The potential environmental damage and the enormous cost of protecting the environment outweigh the 200 or so jobs and the value of the minerals to be extracted.	SO01
1855	It is virtually impossible to estimate the cost of 200-500 YEARS of containing the sulfate and other toxins and treating the water; no amount of assurance bonding or trust fund will be enough to cover the risk of failure of the protective measures.	FIN01, FIN05
1856	We do not know whether the rock to be mined contains gunnerite, a mineral that is known to cause mesothelioma and one that the state has gone to great lengths to prevent becoming airborne. This alone is a huge risk.	HU05
1857	The integrity of our fresh water and our Minnesota culture that is based on clean fresh water and healthy watersheds for our quality of life cannot be put at risk.	WR115
16208	This mine will be in the Lake Superior watershed and has the potential to poison wild rice beds in our waterways and lakes. Recent studies have shown that 10 ug/L or more cause wild rice to decline in viable seed production and the growth is damaged.	WR152, WR156, WR160
16211	We cannot risk this important cultural and economic resource [wild rice], as well as the riverine and riparian wetlands that might be damaged by sulfide containing water.	WR115, WR156
16212	As much as we all use the metals that Polymet would generate in our technology, we cannot afford to risk so much costly and long-lasting environmental damage for a few years of jobs.	SO01
16213	We need to find alternatives to the metals required for technology - let's encourage such innovation in our state instead of ruining our natural resources for what is becoming old technology.	NEPA01
<b>Sender Name (Submission ID)</b> Glenn Oliver (54536)		
19171	Our fresh water is too important to risk. All the water up there will reach Superior sometime.	WR111
<b>Sender Name (Submission ID)</b> Gloria C Walters (11636)		
2329	We need to look at this issue for the long term, not just short term jobs that aren't going to last.	SO01
2329	We need to look at this issue for the long term, not just short term jobs that aren't going to last.	SO01
8267	Every time this type of mining has been allowed to go forward, it has wreaked havoc on the environment and for countless years to come. The pollution will harm our environment, wildlife, children our children's children.	GEN03
8267	Every time this type of mining has been allowed to go forward, it has wreaked havoc on the environment and for countless years to come. The pollution will harm our environment, wildlife, children our children's children.	GEN03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gloria Jacobs (40097)		
6458	if this proposed mine is completed then you can bet your bottom dollar that chemicals will leech and the whole site will be impacted and useless.	WR115
15935	It just isn't worth the risk in the long term as a mine in the short term will poison the environment for generations to follow.	SO01
<b>Sender Name (Submission ID)</b> Gloria Nugent (35664)		
11282	If you give permission for a SULFIDE mine to operate in ANY PORTION OF THE GREAT LAKES, YOU ARE BASICALLY POISONING THE LARGEST SOURCE OF FRESH WATER IN THE WORLD! CAN YOU DRINK IT??? NO! WILL IT KILL THE WILDLIFE THAT DEPEND ON A FRESH WATER SUPPLY? YES!!! WILL THE CITIES, THAT DEPEND ON A FRESH WATER SUPPLY WITHER AND DIE? YES!	WI04
<b>Sender Name (Submission ID)</b> Glory-June Greiff (31837)		
13848	I see nothing that assures me that [pollution from sulfide ore mining] will not happen should this project go forward.	PD01
<b>Sender Name (Submission ID)</b> Gordon H Kimball (44085)		
7750	The SDEIS does not fully or adequately describe or project the cost of...Reclamation and Closure...Fixed Engineering Controls...Annual Post-closure Monitoring and Maintenance for the 200 to 500 year monitoring period...Contingency Mitigation [and] Transition From Mechanical to Non-Mechanical Water Treatment methods	PD01, PD06, PD22
7751	Due to the serious consequences and long term exposure described in this proposal we believe the SDEIS must fully address the potential for PolyMet to cease existence and performance of financial obligations.	FIN05
7754	What potential failures or problems exist for long term maintenance and environmental protection? If they happen, what will be the mitigation and correction required?	PD22
7755	What is the annual cost of Monitoring and Maintenance for the years after mine closure? Who will pay for it if and when PolyMet no longer exists?	FIN01, FIN05, FIN11
7758	What is the annual projected cost per year in the time period 50 – 500 years expressed in 2014 dollars? What assumptions about inflation and economic conditions [are made]?	FIN05, FIN08
7761	Who will pay for shortfalls in long term Monitoring and Maintenance funding?	FIN01, FIN11
15036	The ability of PolyMet Corporation to perform this large scale project or meet the long term financial commitments called for is not proven. PolyMet has no record of successful mining. The average life of a multi-national corporation engaged in large scale business is estimated to be 40 – 50 years. It cannot be assumed they can or will perform the expanded, difficult and long term commitments described in the SDEIS.	FIN01
15039	What legal and financial obligations exist for the permitting agencies and governmental bodies that participated in this SDEIS and / or approved permits? What process exists for securing binding commitments now for financial participation in the 200 – 500 year period of exposure? If none, we believe this is a valid reason for not approving this SDEIS according to State law and regulations.	PER03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gordon H Kimball (44085)		
15041	Will the State of Minnesota be liable to cover shortfalls in long term Monitoring and Maintenance funding? What percentage? What is the potential cost expressed in 2014 dollars? What is the likelihood the State will be able to and be willing to cover costs for the critical long term Maintenance and Monitoring time period?	FIN01, FIN08
15042	Will St. Louis County, the cities of Aurora and Hoyt Lakes be asked to help cover shortfalls in long term Monitoring and Maintenance funding if needed? What percentage? What is the potential cost expressed in 2014 dollars? What is the likelihood they will be able to and be willing to cover costs for this time period. What mechanisms can be put place that obligates these governmental bodies to participate in funding long term Maintenance and Monitoring/	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Gordon Larsen (54140)		
16036	they will say anything to make money, and will be gone before trouble comes. Make Polymet board members personally responsible for clean up, I bet they will not trust the finding.	FIN01
<b>Sender Name (Submission ID)</b> Gordon Murdock (38758)		
16771	I also urge you to do everything possible to create environmentally safe jobs in NE Minnesota. Unfortunately the PolyMet mine does not meet this criterion.	SO01
<b>Sender Name (Submission ID)</b> Gordon Shetter (58060)		
19874	It isn't worth the risk of our resources for corporate profits.	SO01
<b>Sender Name (Submission ID)</b> Gordon Sirvio (11329)		
831	So we have a dual problem. With the diversion of water to the mining process, plans need to be made for how the surrounding land will be affected. Plus drain fields, dams and erosion controls need to be modified for the increase in periodic severe weather.	WR057, WR081, WR176
1605	The PolyMet environmental standards needs to reflect the fact that our climate is changing. Climate at the mining site will become more extreme. Generally, it is projected, there will be lower natural precipitation but there will also be more frequent severe storms. Holding ponds need to be managed for not just a single 100 year storm using the climate standard from the 20th Century but the more likely event of this type of storm occurring 2 or more times in the same period of time.	PD22
<b>Sender Name (Submission ID)</b> Gordy Grundeen (21583)		
14218	Blue Sky Sciences, Inc. proposes using solar hydrogen to convert the sulfide mineral tailings at the Polymet mine site into hydrogen sulfide, H2S. The pure gaseous hydrogen sulfide has a commercial value and the inert residue, free of sulfur, will pose no environmental liability.	ALT17
<b>Sender Name (Submission ID)</b> Gordy Meier (38594)		
9940	The acid runoff and ground water contamination would devastate lakes , rivers , the BWCA and Lake Superior.	WR111
14054	We in Minnesota are blessed with a pristine wilderness area of Northeast Minnesota and the BWCA which truly sets us apart from anything in the lower 48 states--- is that worth risking?	WILD02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gordy Meier (38594)		
14055	Copper and nickel are currently in the limelight due to high prices, demand and availability...when the U.S. becomes be high cost producer, and they lose the demand for their product, then watch the mining companies pack up and leave with no regard to what is left or happens to the jobs, environment or economy in the Northeast.	FIN01, FIN08
14056	If this sulfide mining proposal goes through we stand a huge risk of ground and surface water contamination which would render our lakes and wells not usable. With that our property which we poured over 30 years of time, money, sweat and tears into would be worthless.	WR041, WR115
16313	It is apparent to us, that under the quest to create jobs and for a questionable long term economic gain, there is a willingness to risk the environment , not be concerned for MN citizens and Northeast residents, ignore the devastating impact to existing Northeast tourism, real estate markets and the wild rice industry.	SO01
16314	The acid runoff and ground water contamination would devastate lakes , rivers , the BWCA and Lake Superior.	WR111
16315	We in Minnesota are blessed with a pristine wilderness area of Northeast Minnesota and the BWCA which truly sets us apart from anything in the lower 48 states--- is that worth risking?	WILD02
16316	The Eagles Nest Lakes Chain of 4 lakes, are pristine wilderness spring fed lakes. If this sulfide mining proposal goes through we stand a huge risk of ground and surface water contamination which would render our lakes and wells not usable. With that our property which we poured over 30 years of time, money, sweat and tears into would be worthless.	PER12
<b>Sender Name (Submission ID)</b> Grace A. Nelson (43470)		
15554	I can see where you see the sulfide mining benefiting our state with the use of its minerals and providing jobs, but I do no see how those benefits outweigh the long term negative effects of the sulfide mining. ... I also am not very fond of the negative effects of sulfide mining in terms of pollution of the land and its natural resources.	SO01
15555	As a homegrown Minnesotan, it is hard for me to think that the beautiful landscape of Minnesota will be dug up in order to make room for these mines.	LU04
<b>Sender Name (Submission ID)</b> Grace Christenson (39773)		
6800	The PolyMet sulfide mining would harm animals, the food chain and nature. The 11 endangered species population would decrease even greater than it currently is because of pollution and loss of habitat. Both lynx and moose are endangered and are protected by the Endangered Species Act.	VEG01, WI01, WI02, WI04
6803	Unique wetlands would be harmed by PolyMet's mine.	WET24
14249	PolyMet ...will leave us with hundreds of years of clean up, impacting human health. Babies born on the north shore already have a high mercury level from iron ore mining and a even higher level would occur from sulfide mining.	HU03
14250	Tourism is a big part in northern Minnesota jobs, if mining were to occur people would stop visiting.	SO02
<b>Sender Name (Submission ID)</b> grace e palmer (14970)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> grace e palmer (14970)		
345	Pure water, clean air, and viable soil are our only true wealth. The proposed PolyMet mine threatens all these, thus threatening the health of generations to come.	AIR11, WR195
349	The mine could close after 20 years, providing only one generation with jobs	SO02
350	the monitoring of the watershed will need to go on for hundreds of years, becoming the responsibility of countless generations.	FIN01, WR035
351	The mining company could declare bankruptcy at any time, leaving financial guarantees unmet and taxpayers to pay for necessary closure, clean-ups and endless future monitoring.	FIN01
352	The risks so far outweigh the possible benefits that no guarantees of money are adequate.	FIN10
<b>Sender Name (Submission ID)</b> Grace Geier (1772)		
594	Moving forward with sulfide mining in a region where we don't understand ground water and where some of the largest fresh water reserves are located is pure insanity.	WR071
595	Sulfide mines have historically been environmental disasters, and when mining companies disappear, it is left to the state and the federal government to do the clean up	FIN01
<b>Sender Name (Submission ID)</b> Grace Heitkamp (37178)		
15921	NO, NO, NO, NO, NO, NO, NO to PolyMet. I do not trust that they have the best interests of the state of MN and especially its people at heart. How can we gamble with our natural beauty and life-sustaining water?	WR195
<b>Sender Name (Submission ID)</b> Grace Kelly (46938)		
10664	It is a mining that is heavily polluted with heavy metals and sulfates. Storage is simply done in open pits, open to the weather, open to seepage. Even the company's own models show pollution with expensive treatment for 500 years or more.	PD01
10665	Once pollution gets into the underground aquifer, there is no undoing it. Our rivers will carry the pollution all over. ... Minnesota wants to lose those 360 jobs, because the cost of losing safe drinking water is way too high.	WR115, WR195
10667	Please consider raising my income taxes now for green projects instead of having me pay more for clean water forever. It will cost me much less.	SO02
<b>Sender Name (Submission ID)</b> Grace Lanasa (15341)		
477	The acidity from these mines could destroy aquatic life, people catch fish for food and without it they could starve. Also, fishing is one of the greatest pass times Minnesotans take part in, without the fish it just wouldn't be the same. Animal life is important and deserves to be preserved and the slaughter of thousands of fish by pollution can take away from many families.	AQ05, AQ08
481	Native American tribes have a tradition of growing and picking wild rice. Also, wild rice has a very large economic value aside from cultural value. ... if we decide to build the mind the sulfate would cause harm to wild rice and possibly destroy a tradition. The tribes could lose something valuable to their culture	CR01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Grace Lanasa (15341)		
484	the Copper Mine were built it would be right by the Boundary Waters. ... the pollution will run through very important and cherished national parks. The Boundary Waters are beloved by Minnesota and if the water and air become polluted we could loose them.	WILD02
<b>Sender Name (Submission ID)</b> Grace Sheely (45039)		
7129	Any mining error or contamination would damage and impact tourism and the MN quality of life.	SO02
7132	I also do not believe that the company behind the operations will be solvent and financially able to manage any mishap or its contamination costs.	FIN01
16794	I believe that water resouces are too scare and this project is an unnnecessary risk to the MN waters. The MN waters that would be affected are entirely upstream from everyone in the state.	WR024, WR111, WR158, WR159
<b>Sender Name (Submission ID)</b> Graham Murdock (33503)		
12280	Sulfide mining in and of itself may not be considered dangerous in many areas. However, when such action is taken in an area, any area, close to one of our most precious natural resources, fresh water, it must not be permitted.	WR195
<b>Sender Name (Submission ID)</b> Grand Portage Band (42994)		
2362	Regardless of the time taken to prepare it, the Band is reissuing many of the same comments on the SDEIS that it has issued on the last DEIS calling for basic evaluation of Project impacts and application of wellestablished CEQ standards for EIS preparation, and incorporates all those comments byreference here. See Band's Cmts. on DEIS at Ex. A (Band's Cmts. on June 2008 PDEIS) and Ex. B (Band's Cmts. on Jan. 2009 PDEIS).	COOP01, NEPA12
2364	the co-lead agencies have refused to extend the 90-day comment period on the SDEIS, despite repeated requests.	COOP01, NEPA07
2365	The SDEIS does not take the required "hard look" at all the environmental consequences of the Project, including polluting surface and groundwater resources and drying up or inundating thousands of acres of wetlands in the 1854 Ceded Territory.	COOP01, NEPA14
2366	The lead agencies must significantly supplement the SDEIS [with study of the adverse effects and determination of possible mitigation measures] and provide a full opportunity for agency and public review before issuing a final EIS.	COOP01, NEPA09
2372	In the SDEIS's evaluation of the underground mining alternative, the North Met Deposit is characterized as a "low- to medium-grade mineral resource," a far cry from the "one of the largest untapped deposits of copper and nickel, and other precious metals" or "world class resource" that is repeated throughout the SDEIS and in media coverage. The distinction is critical, as mining must provide sufficient profit to cover costs for adequate environmental protections and financial assurance.	COOP01, PD25
2373	The financial assurance for long-term treatment presented in the SDEIS, ranging from \$3.5 to 6 million appears to be an estimate for monitoring activities only, without any long-term wastewater treatment costs.	COOP01, FIN05
2374	Perpetual operation and maintenance of mechanical wastewater treatment is an additional cost that must be represented in the estimate of financial assurance.	COOP01, FIN05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Grand Portage Band (42994)	
2375	The cursory estimate of financial assurance in the SDEIS provides little detail about how the dollar amount was derived. Instead, discussions have been postponed for the permitting phase of this Project. This approach fundamentally contradicts federal and state environmental policy and the SDEIS must be revised, with significant additional study, to appropriately evaluate closure, mitigation, reclamation, and perpetual treatment cost estimates.	COOP01, FIN13
2377	Although the SDEIS was revised to reflect the Project proponents' preferred action, still, the only alternative analyzed in any detail concerns the acreage of the proposed land exchange. This failure is a serious violation of NEPA and must be remedied before the SDEIS can be finalized.	ALT20, COOP01
2389	Colby Lake water is also proposed for stream augmentation. However, because Colby Lake water exceeds WQS for many pollutants including mercury, it would also need to be RO-treated before being used for augmentation.	COOP01, WR124, WR125, WR184
2391	In order to ensure compliance with Minnesota WQS, and based on the Projects own modeling, adequate financial assurance must be set aside to maintain and operate perpetual RO treatment at both the mine and plant sites.	COOP01, FIN05, FIN06
2395	While the use of RO is encouraged, further analysis and application is needed.	COOP01, WR143
2399	The conclusion that underground mining is not viable, or preferable, remains substantially unjustified, despite repeated requests for further analysis... As the Band already argued in the Tribal Position, significant additional study of the underground mining alternative is mandated, and the SDEIS offers no new discussion of the reasons for rejecting the alternative.	ALT01, COOP01
2422	Exchanging thousands of acres of diverse, high-quality land--land with some of the few remaining large game corridors in northeastern Minnesota that are available to the Bands to exercise reserved 1854 Treaty rights--for lands that have moderate diversity and lack big-game corridors is inconsistent with the fiduciary responsibilities that are shared by all federal agencies.	COOP01, CR01, WI02, WI03
2655	It is well known that wetlands play an important role in the condition of downstream waters by retaining floodwaters, sediment, nutrients, and other pollutants, thereby benefitting the quality of downstream waters.	COOP01, WET24
2656	Wetlands may also function as thermal refuge for moose whensummertime temperatures exceed 14 o C, the point at which moose become thermally stressed. Additionally, wetlands with aquatic vegetation provide an important forage resource for moose during the open-water season.	COOP01, WI01, WI02
2658	[The SDEIS (Pg 5-643)] underestimates the impacts [to aquatic species due to the decrease of first-order streams to the federal estate]. While greater diversity is desirable, protection of headwater streams is critical because they powerfully influence both the character and functions of downstream waters. Headwater streams transport vegetation, woody debris, organic matter, macroinvertebrates, and other organisms downstream, while providing spawning areas for brook trout. Headwaters provide most of the water to rivers, which in turn provides temperature mitigation and oxygenation which are necessary for healthy fish communities.	AQ29, COOP01
2660	the loss of critical wildlife corridors, along with high quality and diverse land and water resources, directly connects the federal regulatory agencies' trust responsibilities to the Bands. The land exchange, and the Project, cannot proceed where they require the agencies to approve permits that will have impacts to treaty resources without additional evaluation and mitigation.	COOP01, CR01
2686	Also ignored [in the design of the Project] was experience with the Dunka Pit, located on the old LTVSMC site approximately five miles north and east of the PolyMet Project mine site.	COOP01, PD26

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<b>Sender Name (Submission ID)</b>	Grand Portage Band (42994)	
2689	The cumulative public information regarding risks to area hydrology from mining the PolyMet site cannot be dismissed by inserting extrapolated data in place of measured data, or by cherry-picking measured data. Impacts to surface waters, groundwater, and wetlands for a project of this size and complexity demand a scientific, data-driven approach, rather than one based on opinion and selectively used data.	COOP01, WR072, WR073
2694	Some of the wetlands that will be directly and indirectly impacted at the mine site are part of the 100 Mile Swamp, identified by a United States Fisheries Service biologist in 1997 as “lacking ecosystem representation in protected areas.”	COOP01, WET19
2697	The decision to use an analogue method came from the Wetlands Impact Assessment Planning work group process, in spite of Tribal Cooperating Agency objections. These objections include: (1) the PolyMet proposed mine pit will be hundreds of feet deeper than any of the “analogue” mine pits;	COOP01, WET08
2700	In response to the Co-Lead Agencies desire to use only analogue data to determine the Project dewatering effects, GLIFWC provided an independent analysis using information from other mine pits located on the Mesabi Range...The only substantial changes in GLIFWC’s method of analogue assessment were to use all available drawdown data for the Mesabi Iron Range, and to not automatically exclude wetlands classified as ombrotrophic from being considered impacted by drawdown...All analogue data must be used to estimate wetland impacts, and additional hydrologic data collected from the mine site should be required.	COOP01, WET08
2701	The CWA does not allow a permit when there are practicable alternatives that would have fewer adverse effects, when the Project would lead to a violation of state water quality standards, or when a permit would cause or contribute to significant degradation of waters of the United States.	COE03, COOP01
2702	An agency-preferred alternative must be provided in addition to the LEDPA’s before wetland impacts resulting from the Project can adequately be assessed, and before a 404 permit can be issued.	COE04, COOP01
2707	During the EIS scoping process for the Project, the Co-Leads failed to ever identify any cumulative impact issues associated with cultural resources, and Tribal Cooperating Agencies were not invited to participate in scoping. The Band’s and other Tribal Cooperating Agencies’ comments on the June 2008 PDEIS, the 2009 CPDEIS, and the 2009 DEIS detailed the nature of these substantial cumulative impacts and the need for further analysis, and are forced to do so yet again here.	COOP01, CR03
2713	This omission [the SDEIS does not determine climate change implications of the proposed Project] undermines even the MNDNR’s own work. The MNDNR’s Moose Advisory Committee, which studies the decline of the moose population in northeastern Minnesota, has recommended preserving wetlands as sanctuaries for moose from heat stress related to climate change.	COOP01, WI01, WI02
2715	a substantial moose population has been identified in the mine site area by aerial and ground surveys. Moose are likely to be impacted by the disturbance of two of the few wildlife corridors remaining along the Mesabi Range, not to mention by the massive wetland impacts of this project...There is no basis to dispute that the Project will have cumulative effects on the moose herd and Tribal harvest in the 1854 Ceded Territory. At a time when moose populations in Minnesota are declining, this analysis is particularly important and should have been done as part of this SDEIS.	COOP01, WI01, WI02, WI03, WI09
2721	The cumulative impacts assessment deficiencies identified above and within Appendix C are not exhaustive. Instead, they are solely an attempt to illustrate the incredible lack of cumulative effects analysis in the SDEIS. Profound revision is needed to this section.	COOP01, CU12
2723	Additionally, the lead agencies must consult with any tribes that attach “religious or cultural significance to historic properties that may be affected by an undertaking,” regardless of the location of the historic property.	COOP01, CR06

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<b>Sender Name (Submission ID)</b>	Grand Portage Band (42994)	
2729	Mesabe Widjiu is correctly identified as a sacred landform but needs to be considered in its entirety instead of looking at only the area within the Project. The segment that is within the project area is small, but vital to the property. Adverse effects to any portion of the Mesabe Widjiu will negatively impact the entire feature.	COOP01, CR02, CR05
2738	Any increase of methylmercury bioavailability in the Embarrass River, Partridge River, or St. Louis River watersheds constitutes a significant adverse impact to a critical trust resource [(subsistence fisheries)]. Not only must this impact be fully evaluated, but it must be fully mitigated	COOP01, CR01
2742	Wild rice waters are not only protected under the 1854 Treaty but under Minnesota State law. Given the obviousness of the threatened impact to such wild rice beds, additional analysis and mitigation must be included throughout the SDEIS.	COOP01, WR156, WR157
2745	The Project will certainly do nothing to aid in the recovery of moose and is likely to reduce available habitat, impact travel corridors, and increase greenhouse gases. Impacts on moose and habitat are impacts on the Band's cultural resources and must be analyzed as such in the SDEIS.	COOP01, WI01, WI02, WI03, WI09
2746	The APE for the Project was not determined until August 11, 2009, after tribal cooperators insisted upon it, and tribal consultation is ongoing. Since 2009, the size of the APE has been significantly diminished to the point of being the Project permitted area and nothing more.	COOP01, CR02, CR06
3039	the land exchange will cause irretrievable losses of resources for the Bands [including loss of the land itself, SDEIS pg 7-10]... Further, the SDEIS provides that the land exchange proposal could have direct and indirect effects on tribal cultural resources by creating noise, impeding access to area that are traditionally or culturally important to the bands and affecting species of importance to the Bands.	COOP01, CR01, CR05
3098	[The decision to use an analogue method came from the Wetlands Impact Assessment Planning work group process, in spite of Tribal Cooperating Agency objections. These objections include:] (2) PolyMet mine pit walls will be crystalline and sedimentary bedrock versus the analogue mine pits in sedimentary bedrock only;	COOP01, WET08
3099	[The decision to use an analogue method came from the Wetlands Impact Assessment Planning work group process, in spite of Tribal Cooperating Agency objections. These objections include:] (3) data collected from the site would be relatively inexpensive and should be used to inform impact assessment;	COOP01, WET08
3100	[The decision to use an analogue method came from the Wetlands Impact Assessment Planning work group process, in spite of Tribal Cooperating Agency objections. These objections include:] (4) relying on only a partial set of available "analogue" data as the source of information to estimate dewatering impacts is selective and not scientifically robust.	COOP01, WET08
3112	The SDEIS also does not provide any rationale for more mercury to be added to a system that is already so high in mercury, only suggesting that a future TMDL should take care of the problem. A more through cumulative effects analysis is required for mercury and the appropriate spatial scale for considering cumulative impacts includes the entire St. Louis River watershed.	COOP01, MERC10, MERC22
3117	While the incremental risk [of mercury loading] from the Project may be small, the existing risk is large and has not yet been addressed through a total maximum daily load ("TMDL") or other reduction program.	COOP01, MERC22
9007	In the SDEIS, there is no discussion regarding the type of financial assurance that would be used. No detail is provided regarding the estimated amount of financial assurance that would be sufficient for reclamation, closure, mitigation, and remediation of adverse effects from the Project. Even though the MNDNR has stated that PolyMet financial assurance will include clean-up costs for contamination resulting from LTVSMC operations, the SDEIS provides no discussion regarding financial assurance for the existing contamination associated with previous mining activities at the site.	COOP01, FIN01, FIN05, FIN08, FIN11

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9008	Mining need not be synonymous with pollution: “In the right place – and with conscientious companies, new technologies and good planning – many of the potential impacts are avoidable. In fact, most mine pollution arises from negligence, not necessity.” The NEPA “hard look” requires agencies to “exercise a degree of skepticism in dealing with self-serving statements from the prime beneficiary of a project” when analyzing alternatives. The SDEIS does not evaluate or examine Project alternatives in any substantive way; even the no-action alternative is lacking in detail and analysis. Instead, the SDEIS states: Consistent with the CEQ regulations, the federal Co-lead Agencies are required to identify an agency-preferred alternative in a DEIS, if one exists, and in the FEIS unless another law prohibits the expression of such a preference. At this time, the Co-lead Agencies have not identified a preferred alternative, and for the USACE, Appendix B of 33 CFR Part 325 supersedes the CEQ requirement to identify an agency-preferred alternative. Part 57(4) of 33 C.F.R. Part 325 at Appendix B, NEPA Implementation, only states: Alternatives. See 40 CFR 1502.14. The Corps is neither an opponent nor a proponent of the applicant's proposal; therefore, the applicant's final proposal will be identified as the “applicant's preferred alternative” in the final EIS. Decision options available to the district engineer, which embrace all of the applicant's alternatives, are issue the permit, issue with modifications or conditions or deny the permit. To the extent this limits USACE's obligation to identify an agency-preferred alternative, which is not clear, nothing there limits the USFS's obligation to do so. Moreover, Part 57(4) of Appendix B does require that “reasonable alternatives” must be considered in detail, along with “geographic alternatives, e.g., changes in location and other site specific variables, and functional alternatives, e.g., project substitutes and design modifications.” The Band has long cited this defect in its comments, 21 and EPA cited the lack of alternatives as a factor when issuing an EU-3 rating for the DEIS. Although the SDEIS was revised to reflect the Project proponents' preferred action, still, the only alternative analyzed in any detail concerns the acreage of the proposed land exchange. This failure is a serious violation of NEPA and must be remedied before the SDEIS can be finalized.	ALT01, ALT03, ALT14, COOP01
9011	No effort was made to discuss or evaluate the least environmentally damaging practicable alternative (“LEDPA”) required before rendering a Clean Water Act Section 404 Permit.	COE04, COOP01
9014	The SDEIS failed to substantively consider many alternatives that may provide mitigation for, or prevent long-term environmental damage. Some of these alternatives include: paste tailings to reduce the project footprint and use less water thus decreasing risk of water pollution; perpetual pumping of the mine pit to prevent a pit lake from forming and by doing so protecting groundwater; back-filling waste rock into the east, central, and west mine pits to reduce the mine footprint and restore wetlands; engineered liners; providing reverse osmosis treatment at the mine site beginning in year one of operations to augment water loss in nearby high quality wetlands in the Partridge River watershed; and underground mining.	ALT01, ALT04, ALT06, ALT10, ALT13, COOP01
9020	The SDEIS summarily dismissed the possibility of backfilling: The opportunity to reclaim wetlands and vegetation at the Category 1 Stockpile footprint area would be the only measurable environmental benefit offered by backfilling the Category 1 Stockpile into the West Pit. However, because of the temporal effect that the stockpile would have, those effects would be required to be mitigated regardless of future backfilling or not. Furthermore, the potential environmental benefit is moot or outweighed because encumbrance is not allowed in PolyMet's private mineral leases and because the costs associated with backfilling, additional water treatment (rates), and encumbrance compensation determined in revised lease agreements may affect the ability of PolyMet to secure financing (MDNR et al. 2013b). As such, the option to backfill the West Pit was eliminated from further consideration in the SDEIS. Back-filling all of the mine pits with waste rock would reduce the surface footprint of the mine and make possible 526 acres of wetland restoration where the Category 1 stockpile is now proposed to be stored without a liner in perpetuity.	ALT03, ALT06, COOP01
9022	Engineered liners for the Category 1 Waste rock Stockpile and the Overburden Storage Layout Area (“OSLA”) would ensure that seepage would not migrate into fractures below the storage facilities and increase the effectiveness of seepage capture... If the Category 1 Stockpile were lined, seepage capture efficiency would increase and less water carrying pollution would migrate from the pile into the fractures below the storage area thereby protecting groundwater.	COOP01, PD16

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9025	RO-treated water should be used to augment stream flow at both the plantsite and mine site. Colby Lake water should not be used for stream augmentation unless it is RO-treated first. RO will not cause waters in the vicinity of the plant site to comply with WQS due to low seepage capture efficiency at the tailings basin.	COOP01, WR018, WR124, WR184
9029	The MNDNR and USACE considered underground mining as an alternative to the proposed open pit(s) for the DEIS in 2009, but eliminated it because it would have had “a significantly reduced rate of operation that would not be considered economically feasible, and, therefore, would not meet the Purpose and Need of the Project.” Even though underground mining was reconsidered for the SDEIS, the Co-Lead Agencies did not “exercise a degree of skepticism in dealing with self-serving statements from the prime beneficiary of a project” when analyzing alternatives. The Project proponent eliminated the alternative based solely on an economic decision that underground mining would not be as profitable as open pit mining. The co-leads state that “it was not possible to undertake a quantitative, side-by-side assessment of the underground mining alternative.” <sup>37</sup> An underground mine would have a reduced mining rate and life of mine, employed fewer workers for a shorter period of time, and reduced state and local tax revenues. Conversely, although the underground mining alternative would offer environmental benefits, the SDEIS includes no economic analysis of those benefits. Still, the Co-Lead Agencies determined that underground mining would result in reduced socioeconomic benefits, and “PolyMet would not move forward with an unprofitable project, thus any potential environmental or socioeconomic benefits associated with this alternative are moot.”	ALT06, COOP01
9031	Although underground mining was considered technically feasible, the Co-Leads provided that:PolyMet is a private sector and for-profit company, the value of the saleable material would need to provide sufficient income to cover operating cost (which includes, but is not limited to, the cost of mining, processing, transportation, and waste management), capital cost (to build and sustain facilities), an adequate return to investors, reclamation, and closure costs and taxes. Using underground mining would result in most of the NorthMet Deposit left unmined because of its low metal value (i.e., less value than the cost of mining and mineral processing). Other material would have to be left in place for safety reasons, to prevent collapse. Therefore...the Co-lead Agencies found that while underground mining is technically feasible, available, and would offer significant environmental benefits over the proposed NorthMet Project, it would not be economically feasible and would not meet the Purpose and Need. Since the underground mining alternative would not meet all of the screening criteria, it is not considered to be a reasonable alternative. Therefore, the underground mining alternative was eliminated from further evaluation in the SDEIS.In no way does this constitute an appropriate level of detail. The conclusion that underground mining is not viable, or preferable, remains substantially unjustified, despite repeated requests for further analysis. Without considering the economics of perpetual treatment the economic analysis provided by the Project proponent concludes that underground mining is “[n]ot economically viable,” while simultaneously claiming that backfilling the west pit would create encumbrances not allowed in their lease due to minerals located below the west pit that can only be accessed through underground mining. This is not the appropriate use of a cost-benefit analysis for purposes of analyzing an EIS alternative. The CEQ regulations require that, where a cost-benefit analysis is “relevant to the choice among environmentally different alternatives,” there are a variety of additional requirements, including “analysis of un-quantified environmental impacts, values, and amenities,” <sup>42</sup> in addition to other CEQ alternatives rules.	ALT01, COOP01
9033	Additionally, the SDEIS does not provide adequate discussion of the adverse effects of the proposed land exchange on wetlands and headwater streams within the St. Louis River	COOP01, WET14
9036	The SDEIS attempts to diminish the significance of the loss of these high-quality lands by stating that “[g]iven the existing lack of overland public access and actual use of the federal lands, as well as historic use of this area for mineral exploration (see Section 4.2.9), the Land Exchange Proposed Action represents little to no change in the actual level of recent or current use of the federal lands.” In fact, historic trails key to both the exercise of treaty rights and of historic significance connect what is now Beaver Bay with Lake Vermillion.	COOP01, CR05
9037	data collected specifically for the Project was selectively used, with several well and surface water monitoring stations’ data completely excluded from the water quality models used to predict Project impacts.	COOP01, WR008, WR071, WR072

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9046	The baseflow rate predicted by XPSWMM is three times lower than flow data indicates, and implies recharge to the groundwater system from precipitation that is not consistent with published literature.	COOP01, WR003, WR175
9051	the SDEIS indicates that mine pit dewatering impacts will be very limited or non-existent based on the assumption that there is little or no connection between the bedrock and surficial aquifers. This assumption is not supported by the data used to characterize mine site hydrology; instead, it is based on an unsupported "professional opinion."	COOP01, WR010, WR012
9052	data indicates that the PolyMet mine site is already hydrologically connected to the Peter Mitchell Pit through fractures.	COOP01, WR010, WR011, WR012, WR013, WR061, WR071, WR087, WR099, WR168, WR169
9054	the SDEIS entirely skirts the question of overall impacts on the groundwater aquifer from putting an already-contaminated [tailings basin] site back into production...Blasting and shoveling ore will increase both the number of fractures and the connectivity of fractures potentially increasing baseflow and pit leakage into the bedrock layers below the bottom of the pit	COOP01, WR016, WR030, WR060, WR071
9056	A comparison of hydrologic data that was collected for two other projects in the region demonstrates that the PolyMet project is data-poor in the area of basic hydrology, much less mitigation. Moreover, given the utility of the many existing studies of area hydrology, it is perplexing that the preparers have continually refused to use them, even as tribal cooperating agencies have repeatedly requested that they be used.	COOP01, WR023, WR071
9059	The proponent's claim that 90 percent of the seepage from this tailings basin can be captured is unrealistic...Tribes requested any example of the "90 percent or better" capture efficiency rate to be provided by the Co-Lead Agencies, but they were not able to provide a single example anywhere in the world. Actual examples in northeastern Minnesota, from U.S. Steel Minntac126 and the LTVSMC tailings basin seep SD0026 (the very tailings basin PolyMet proposes to re-use), demonstrate capture rates of less than 60 percent.	COOP01, WR017, WR018, WR020
9062	Contrary to SDEIS claims, all of the seepage from SD026 is not being captured and therefore must be considered further in the SDEIS and project modeling.	COOP01, WR117
9063	The SDEIS provides that construction of a groundwater containment system... "would capture virtually all of the Tailings Basin seepage"...without installing a single monitoring well in the bedrock to test this assumption...the SDEIS's conclusion that the method would be effective essentially is unsupported.	COOP01, WR010, WR018, WR061, WR071, WR079, WR090, WR099, WR108
9069	the tailings basin model uses storage coefficients that are not found anywhere in peer-reviewed scientific literature...this model simulates a bedrock storage tank where lots of water goes in and virtually nothing comes out. Because this is not possible, these modeled hydraulic conductivity and/or modeled storage coefficients cannot reliably estimate the amount of seepage that will bypass the seepage capture system, nor the amount of time before seepage upwells in nearby wetlands or in the Embarrass River.	COOP01, WR018, WR019, WR093, WR095, WR097
9073	Without any examples worldwide of such high seepage capture efficiency, the SDEIS alleges that [the slurry wall] is a fail-safe method of seepage collection able to collect 97 percent of the surficial aquifer seepage and 90 percent of the deep seepage through bedrock, and that no polluted water will seep from the tailings basin on the east side because bedrock conductivity is very low and the bedrock storage coefficient very high.	COOP01, WR019, WR020, WR102

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9074	“Semi-analytical flowpaths” for the tailings basin have been constrained in the Modflow model so that water cannot seep out of the east side of the tailings basin. However, winding underneath the east side of the tailings basin is a bedrock valley that used to be the headwaters of Trimble Creek...More water likely flows out of the east side of the tailings basin than does out the southern toe at monitoring site SD026. Therefore, without constructing the slurry wall containment system around the east end of the tailings basin, hundreds of gallons per minute of polluted water will drain into the Embarrass River watershed.	COOP01, WR102, WR104, WR133
9077	Even though the PolyMet project proposes to use a double-liner to prevent leakage from the [HRF], head pressure from the existing seeps and springs at this site mean that the liners, even installed perfectly will not last long before rupturing.	COOP01, PD17
9081	20 feet of pit wall will never be submerged and as such constitutes a perpetual source of mine related contaminants. Because of continued inputs from the stockpiles, the tailings basins, and the pit walls, the pit lake could exceed surface water quality standards for thousands of years.	COOP01, WR035, WR036, WR173
9083	As stated previously, many mitigation measures were not identified in the SDEIS, including the LEDPAs, nor are they evaluated using the required NEPA “hard look.” There is no agency-preferred alternative identified in the SDEIS either. Combined, this makes it exceptionally difficult, and meaningless, to provide any input on the 404 permit or the corresponding 401 certification.	COE04, COOP01
9091	There has been no analysis of the 1854 Ceded Territory as a discrete area of impact. The Band continues to ask that it be included. Tribal Cooperating Agencies believe the Cumulative Effects Analysis for land use should encompass the 1854 Ceded Territory	COOP01, PER08
9093	Tribal Cooperating Agencies consider a 216,300 acre area bounded by the St. Louis River, Lake Superior, Lake Vermilion and the Beaver Bay to Vermilion Trail to be a Tribal Historic District, and the pertinent area for consideration of cumulative effects to cultural resources.	COOP01, CR04
9097	The SDEIS also fails to analyze cumulative effects on water quality and quantity. The relevant spatial scale for water quality and hydrologic cumulative effects analysis is the entire St. Louis River watershed.	COOP01, CU01
9101	Also missing is cumulative-impacts analysis of culturally-important plant and animal species that are listed as “Species of Concern.”..There is no basis to dispute that the Project will have cumulative effects on the moose herd and Tribal harvest in the 1854 Ceded Territory. At a time when moose populations in Minnesota are declining, this analysis is particularly important and should have been done as part of this SDEIS.	COOP01, WI03
9104	The Cumulative Effects Assessment Area defined by the Co-Leads for impacts to aquatic species is overly limited. It includes only the Partridge and Embarrass Rivers...The appropriate spatial scale for considering cumulative impacts to aquatic species is the entire St. Louis River watershed and Lake Superior Basin.	AQ26, COOP01
9105	The SDEIS states that the current fish tissue concentration in five local lakes results in Hazard Quotients (“HQs”) that exceed 1, but gives no further information...In fact, Barr Engineering’s July 2012 “Cumulative Impacts Analysis, Local Deposition and Bioaccumulation in Fish” showed modeled contributions from both the Mesabi Nugget Large Scale Demonstration Plant (“LDSP”) on the site and PolyMet. And the Barr report further provides the actual HQs, rather than just saying “they exceed 1.”...This information should be explicitly included in the SDEIS for public review.	COOP01, MERC02
9107	Meeting ambient noise standards is a different question than assessing impacts. Impacts should be fully characterized and contour maps showing overlapping noise pollution from different projects provided. Without this information, it is not possible to review the cumulative impacts of noise.	COOP01, N03
9109	The cumulative risk analysis of transportation of hazardous materials has not been analyzed. This should include rail car spills, pipeline ruptures, and truck transport accidents.	COOP01, HAZ06

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9111	Post-closure impacts should also be included in the cumulative effects analysis because some mine features (e.g., pit lakes) would become permanent features of the landscape.	COOP01, CU16
9115	A key piece of the work that still has not been completed, despite some progress, is the traditional cultural property (“TCP”) studies...An appropriate investigation of the Project site using this standard, and in cooperation with all involved THPOs, must be performed and properly documented. As noted in the chapter, consultation is underway on this topic, but is far from complete.	COOP01, CR05, CR06
9117	The SDEIS must include language to the effect that the Band continues to take the position that the Ceded Territory is itself a TCP and does not agree with the USACE’s determination that it is not.	COOP01, CR02, CR05, CR06
9120	The Project Area of Potential Effect (“APE”) for cultural resources is divided into two separate sections surrounding the proposed mine site and the proposed plant site. These areas do not encompass the true extent of the APE...Until the cumulative effects analysis of the Project is better represented, the agency preferred alternative is defined, and the LEDPAs identified, it is premature to delineate the APE.	COOP01, CR02, CR03
9124	the Beaver Bay to Lake Vermilion Trail (“BBLVT”)... is “associated with the lives of persons significant in our past”...To date, the BBLVT has not been fully researched or rigorously field-verified within the project area. Additional fieldwork should be conducted in the spring or fall when ephemeral features such as foot trails are less easily concealed by vegetation and more easily discerned.	COOP01, CR05
9132	The Band fundamentally disagrees with any seasonal sulfate release in wild rice waters, whether now or later. There is no scientific basis for stating that seed is not affected by high sulfate levels while it lays dormant over the winter, or that the effects of high-sulfate water would not remain or continue into the summer.	COOP01, VEG04, WR152, WR153, WR157
9135	There still has not yet been sufficient evaluation of Band member use of vegetation and other usufructuary resources in the APE, and there is no permissible basis to omit such evaluation where the USACE and other federal permitting agencies have a trust responsibility to the Band to maintain treaty resources in the 1854 Ceded Territory.	COOP01, CR01
9138	in the SDEIS Socioeconomics chapter, none of the issues identified [in Executive Order 12898] Executive Order have been addressed...It is theBand’s position that any impacts to natural resources will disproportionately affect tribes due to their subsistence consumption of wild rice, fish, and other wildlife, and gathering of traditional plants and medicines within the 1854 Ceded Territory.	COOP01, SO09
17731	the tailings basin seepage capture rate of 90 percent assumed in the preferred alternative has not been demonstrated anywhere in the U.S. and is simply not possible because the tailings basin was built without a liner.	COOP01, PD08, WR018
17732	In fact, at the Project site, the existing seepage capture system that was installed as a requirement of the Cliffs Erie Consent Decree for SD026 is so ineffective that Cliffs Erie is proposing to build an additional dam and capture system further downstream. Therefore, paste tailings placed on a liner and covered could have a profound, minimizing effect on pollution reaching the Embarrass River watershed wetlands and the Embarrass River. The SDEIS does not even mention this modern technique used by many mines in U.S. and around the world, without justification: Converting to paste tailings technology from conventional slurry tailings at most mines makes sense both environmentally and economically. Paste tailings use less water; require less land; do not require engineered containment dams; generate less acid and contaminants; reduce long-term costs and allow for early reclamation. Slurry tailings use and discharge large volumes of water, require dust control measures, require large land areas and containment dams for disposal, and create contaminated water that must be captured and treated.	ALT06, ALT16, COOP01

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17733	Perpetual pumping of the mine pits to prevent formation of a pit lake is required by the State of New Mexico, Office of Natural Resource Trustee, for the Chino and Tyrone copper mines expressly to protect groundwater and waterfowl. <sup>29</sup> Numerous western mines have discharged plumes of polluted water into the bedrock aquifer from leaking mine pits, tailings basins and waste rock piles, a problem that is not only difficult but expensive to fix. Requiring perpetual pump out of the mine pit would minimize leakage of contaminated water into the surrounding bedrock aquifer thereby protecting groundwater that the State is required to protect as source of drinking water.	ALT04, COOP01
17734	This alternative would prevent the need for a separate seepage capture system around an unlined waste rock pile, as proposed in the preferred alternative, that would have to work at an above optimum capture rate in perpetuity. Capping and re-vegetating the mine pits after backfilling with waste rock would prevent deep infiltration of precipitation. In combination, perpetual pumping and backfilling the Category 1 waste rock pile would substantially reduce the risk of polluting groundwater and wetlands in the Partridge River watershed.	ALT04, ALT06, ALT13, COOP01
17735	The OSLA will contain peat that has sequestered mercury. When water flows through the OSLA the seepage will transport some of the mercury from the peat.	COOP01, MERC24
17736	As the Project is currently proposed, after operations, the mine site wastewater treatment plant will be converted to RO to treat the west mine pit lake and Category 1 stockpile seepage for discharge to the west pit outlet creek that flows into the Partridge River. An alternative that was not considered in the SDEIS would use RO at the plant site to begin with to treat storm water, mine infiltration, and waste rock pile seepage. Using RO treated water for stream and wetland water augmentation in the Partridge River watershed would provide mitigation for the some of the adverse effects of mine pit dewatering.	ALT13, COOP01
17737	As the Band already argued in the Tribal Position, significant additional study of the underground mining alternative is mandated, and the SDEIS offers no new discussion of the reasons for rejecting the alternative. The economic viability of an underground mine depends on a variety of factors including ore grade, market prices, cost of tailings, and waste rock disposal. A study of this particular deposit was performed by the prior owner of the site, U.S. Steel, which actually recommended underground mining. <sup>43</sup> PolyMet is well aware of this study, given that the company included it in a 2003 filing with the Securities and Exchange Commission. In fact, by examining cross-sections showing the distribution of ore by depth, <sup>45</sup> it appears that there are substantial ore reserves at depths that likely could not be accessed by the proposed open-pit mine. The ecological costs of open-pit mining and above-ground disposal of tailings and waste rock are immense. This ecological cost, combined with the most current understanding of deposit ore grades and reasonably possible metals prices, and the costs associated with perpetual treatment must be evaluated to determine the viability of [the underground] alternative.	ALT01, COOP01
17738	the SDEIS does not disclose appraisal information [for the Land Exchange]	COOP01, LAN03
17739	Of the approximately 6,025 acres of MCBS Sites of High Biodiversity Significance under the Land Exchange Proposed Action, <sup>51</sup> nearly 2,000 acres of coniferous bog wetlands will be lost to the federal estate, and therefore effectively lost to the Bands, if the proposed land exchange takes place. This is significant because many tribally harvested resources are only available in coniferous bogs (e.g. cranberries, labrador tea, creeping snowberry), and restoration of coniferous bogs is a very difficult and long process that has extremely low success rates.	COOP01, CR01, WET05, WET14
17740	The proposed action land exchange would trade water resources within the Lake Superior Basin for wetlands and surface water outside the Lake Superior Basin [resulting in] a loss of 3,791 acres of federally-managed wetlands within the Lake Superior Basin under the proposed exchange.	COOP01, WET15

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Sender Name (Submission ID)	Grand Portage Band (42994)	
17741	<p>Furthermore, the SDEIS acknowledges that the Land Exchange Proposed Action would create a “net increase of third-order streams and decrease in first- and second-order streams which would likely add more habitat diversity to the Superior National Forest.” But the SDEIS underestimates the impact of this increase: “Headwater streams are the smallest parts of river and stream networks, but make up the majority of river miles in the United States. Many headwater streams have been lost or altered due to human activities ... and this can impact species and water quality downstream.” The SDEIS states that the decrease of first-order streams to the federal estate would “slightly reduce the amount of available spawning habitat for some aquatic species as headwater streams provide specialized spawning habitat for some species.” Again, this underestimates the impacts. While greater diversity is desirable, protection of headwater streams is critical because they powerfully influence both the character and functions of downstream waters. Headwater streams transport vegetation, woody debris, organic matter, macroinvertebrates, and other organisms downstream, while providing spawning areas for brook trout. Headwaters provide most of the water to rivers, which in turn provides temperature mitigation and oxygenation which are necessary for healthy fish communities.</p>	COOP01, WR114
17742	<p>The SDEIS also erroneously concludes that no known cultural resources exist on the nonfederal lands, despite impacts to wild rice waters, and the proposed exchange will not sufficiently compensate for the loss. The Land Exchange Proposed Action would result in additional wild rice beds by the acquisition of Tract 1. Tract 1 contains Little Rice Lake, which supports a continuous population of wild rice. Wild rice also grows along the Pike River south of Little Rice Lake and in isolated populations on Hay Lake. The wild rice waters in Tract 1 are accessible to the Bands via the Pike River. Therefore, adding Tract 1 to the federal estate does not provide additional wild rice harvesting opportunities to Band members in the 1854 Ceded Territory.</p>	COOP01, LAN05, VEG08, WR155
17743	<p>It is commonly acknowledged that “[w]ater has been called ‘mining’s most common casualty’ .... Mining affects fresh water through heavy use of water in processing ore, and through water pollution from discharged mine effluent and seepage from tailings and waste rock impoundments.” Acid mine drainage (“AMD”) is one of the greatest environmental liabilities associated with mining, especially in pristine environments like the Project mine site, that have economically and ecologically valuable natural resources. There are no hardrock surface mines that exist today that can demonstrate that AMD can be stopped once it occurs on a large scale. Inaccurate pre-mining characterization and interpretation often results in a failure to recognize or predict impacts to water quality and aquatic life. Evidence from literature and field observations suggests that permitting large scale surface mining in sulfide-hosted rock with the expectation that no degradation of surface water will result due to acid generation imparts a substantial and unquantifiable risk to water quality and fisheries. In a report comparing predicted and actual water quality at hardrock mines, there were two types of characterization failures that were key to explaining differences between the predicted water quality in EIS documents and the actual water quality either during or after mining began. These included: 1. Insufficient or inaccurate characterization of the hydrology: The authors reported primary causes of hydrologic characterization failures as overestimations of dilution, lack of hydrological characterization, overestimations of discharge volumes, and underestimations of storm size. 2. Insufficient or inaccurate geochemical characterization of the proposed mine: The primary causes of geochemical characterization failures were identified as lack of adequate geochemical characterization, in terms of sample representativeness and sample adequacy. The primary causes of mitigation failures were that mitigation measures were not identified, were inadequate, or were not implemented; waste rock mixing and segregation was not effective; liners leaked; tailings were spilled; or embankments failed, and land application discharge was not effective. The SDEIS suffers from all of these characterization failures. An egregious lack of hydrologic characterization allows PolyMet to pretend that there will be no water pollution resulting from the Project. In fact, the SDEIS arbitrarily concludes water quality will actually improve as a result of the Project. The following is a short list of the problems with water modeling in the SDEIS.</p>	AQ12, COOP01, WR071, WR126, WR128, WR134, WR136

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17744	Moreover, data collected specifically for the Project was selectively used, with several well and surface water monitoring stations' data completely excluded from the water quality models used to predict Project impacts. Specifically, all data collected from groundwater monitoring wells GW008 (13 sampling events), GW009 (12 sampling events), and GW010 (9 sampling events), were excluded from the models. These monitoring wells are northeast and north of the tailings basin between the tailings basin and the Embarrass River. Furthermore, none of the nine surface water quality sampling events collected at PM 11, a sampling station on unnamed creek located northwest of the tailings basin half-way between the tailings basin and the Embarrass River, were used in the Projects models. Also excluded from the models were data from nine sampling events collected at Station PM 12.1 in the Embarrass River upstream of the tailings basins. Instead, the model includes 53 sampling events in the Embarrass River at PM-13.85 PM- 13 is 7.3 river miles downstream of the northwest corner of the tailings basin, and 16.2 river miles from monitoring location PM-12.2 - long past the first water quality compliance points in the Embarrass River.	COOP01, WR072, WR076
17745	An additional problem is that the models intended to predict impacts from the Project were not calibrated to existing water quality in Colby Lake. Most of the data used to represent Colby Lake in the model was extrapolated from sampling sites well upstream in the Partridge River.	COOP01, WR046
17746	Despite this selective use of water modeling data, the SDEIS claims “[t]he NorthMet Project Proposed Action is also not predicted to result in any significant changes to groundwater and surface water flows when compared to existing conditions.” To achieve this prediction, the hydrologic models for the Project were built using modeled inputs rather than actual measurements or estimates from scientific literature. This makes the Project models unable to accurately characterize groundwater flow direction, water tables, potentiometric surface in the aquifers, fluxes to rivers and streams drawdown mounding impacts to the water tables or surface waters, or to predict water quality impacts. The models for the Project must be re-calibrated using all available measured data and scientifically credible basic model inputs.	COOP01, WR056, WR071, WR086, WR105
17747	Chapter 5 of the SDEIS acknowledges that “[t]he NorthMet Project Proposed Action would have the potential to affect groundwater and surface water hydrology and quality in both the Partridge River and Embarrass River watersheds.” However, the hydrology model that was developed to determine Project impacts relied on outdated data collected too far from the site. Because the Project proponent was not required to install stream gauges at the site, they used a model (XP-SWMM) to extrapolate baseflow far upstream from where the data was collected to the areas where the proposed mine pit(s) and tailings basin would be located. The extrapolated baseflow used twenty-year-old stream gauging data collected seventeen miles downstream of the mine site in the Partridge River, and stream gauging data that is more than fifty years old collected eleven miles downstream of the plant site in the Embarrass River... Therefore, the results are highly unlikely to be representative of current conditions at the mine or plant site.	COOP01, WR003, WR052, WR071, WR073, WR086, WR091
17748	During subzero temperatures January 25-26 and February 15-16, 2011, the minimum baseflow measured by the MNDNR in the Partridge River at the point nearest the proposed mine pits was of 3.4 cubic feet per second (cfs). Values calculated by staff from Great Lakes Indian Fish and Wildlife Commission (“GLIFWC”) and MNDNR from low flow stream gauge data in the Partridge River ranged from 1.2 to 1.8 cfs, while the XP-SWMM model predicted a baseflow of 0.5 cfs. Not only is the Project modeled baseflow inconsistent with published literature, none of the measured data supports the baseflow predicted by XP-SWMM at SW003 of 0.5 cfs. XPSWMM's extrapolation of unrealistically low baseflows was used to calibrate the MODFLOW model and therefore influences virtually all aspects of the Project water quality and quantity characterization and impact prediction, including: groundwater flow rates and pit inflow, dewatering impacts to the rivers and wetlands, water treatment needs, contaminant transport times and concentrations, and contaminant dilution. Higher baseflows in the Partridge River indicate that the wetlands and river are connected to the groundwater aquifer, that mine pit inflow will be greater; and that groundwater will travel through the aquifer will occur at a much faster rate. During subzero temperatures January 25-26 and February 15-16, 2011, the minimum baseflow measured by the MNDNR four miles south of the LTVSMC tailings basin 13.9 to 15 cfs in the Embarrass River. Model estimated the average annual baseflow for the Embarrass River, based on data more than 50 years old, at 8.7 cfs.	COOP01, WR003, WR004, WR091

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<b>Sender Name (Submission ID)</b>	Grand Portage Band (42994)	
17749	<p>Surface water quality at the Project remains insufficiently characterized or left uncharacterized, and the defects in analysis in this area are profound. The limited data the SDEIS uses indicates that surface waters have already been adversely impacted by mining activity--which should give rise to more scrutiny, not less. Contaminant transport modeling suggests that the Project will cause manganese, aluminum, and sulfate to exceed Minnesota Water Quality Standards (“MN WQS”). Mercury, sulfate, and specific conductance have already exceeded surface water criteria in surface water samples collected near the tailings basin at nearby Area Pit 5, and mercury and aluminum exceed surface water criteria in the Partridge River downstream of Colby Lake. Aluminum, iron, manganese, and mercury all exceed MN WQS in Colby Lake. Contaminants from the Project will likely contribute additional loading to these existing exceedences of MN WQS in the Embarrass River, Colby Lake, and the Partridge River. And, as a result of the Project, it appears that arsenic will exceed drinking water standards in Colby Lake. No water samples have been collected from lakes near the tailings basin (including Hieckilla, Mud, Kaunonen, or Hay Lakes) to determine if the pollutants found in the surface and groundwater at the existing tailings basin have caused contamination of those waterbodies. The SDEIS even acknowledges current exceedences: “...the existing LTVSMC Tailings Basin is not lined and currently releases seepage with elevated concentrations of sulfate, TDS, and hardness, among other constituents.” It just does not propose any effective means of remediating them.</p>	COOP01, WR064, WR075, WR109, WR123, WR197
17800	<p>The Band is profoundly concerned at the preparers’ refusal to consider past state agency experience with this site that had disastrous consequences for water quality. The Band has located an MPCA document from the Minnamax Exploration Project, a test shaft drilled into the Duluth Complex, the rock formation where the mine would be sited, by AMAX Corporation in the 1970s, approximately three miles from the Project mine site. This document states that water was encountered 147 feet below the surface infiltrating into the test shaft at approximately 14 gallons per minute and identified another potentially water bearing fracture zone at 900 feet below the surface. This means that the volume of bedrock groundwater that may be encountered by the Project mine pit has been vastly underestimated.</p>	COOP01, WR007
17802	<p>Other MPCA documents detail an unexpected saline water discharge that resulted as part of the AMAX Exploration Project from a water pocket 1,391 feet below the surface. The large quantities of saline water discharged, as much as 275 gallons per minute to Langley Creek, killed much of the vegetation en route. Data show severe impacts to wetlands in the vicinity of the project. Water from stockpiles that were minuscule in comparison to the stockpiles proposed for the PolyMet Project drained water with very high concentrations of nickel, cobalt, copper, zinc, and sulfate, and discharged that water into Langley Creek and the Partridge River. The project polluted streams, groundwater, and a large wetland complex in its vicinity in order for the MNDNR to study potential impacts and mitigation strategies for non-ferrous mining. Yet the data collected from the AMAX project was not used to predict water quality or wetlands impacts presented in the PolyMet SDEIS.</p>	COOP01, WR007

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17807	<p>Also ignored was experience with the Dunka Pit, located on the old LTVSMC site approximately five miles north and east of the PolyMet Project mine site. In the Dunka Pit, LTVSMC contacted the Duluth Complex and the Virginia Formation while mining for taconite in the Biwabik Iron Formation. By 1991, LTVSMC had removed about 50 million tons of Duluth Complex material from the Dunka pit and placed it in “gabbro” stockpiles. Monitoring of the drainage from these stockpiles beginning in 1976 revealed a decrease in pH and an increase in trace metals. Copper and nickel concentrations as high as 1.7 and 40 mg/l respectively were observed in seepage/run-off from the Duluth Complex waste rock stockpiles and pH was observed as low as 5.0 at seep 1 between 1976 and 1980.157 Most of the seepage from waste rock piles at the Dunka site was discharged to Bob’s Bay in Birch Lake via Unnamed Creek. A 1976-1977 study of trace metals in Bob’s Bay found that concentrations of copper, nickel, cobalt, and zinc in the water of the Bay were higher than regional average concentrations and decreased with distance from the mouth of Unnamed Creek. Additionally, it was determined that Unnamed Creek contributed more than 90 percent of the trace metals to Bob’s Bay load. The October 2001 NPDES permit for this discharge expired in 2005 and another variance request is expected. The 2001 Dunka mine area permit has a variance provision allowing toxic pollutants to exceed the final acute value. A Waste Water Treatment Facility (“WWTF”) located at the site has been inactive because Cliffs Erie, LLC, the owner after LTVSMC, declared bankruptcy and claims it is simply too expensive to continue running. Unfortunately, the passive wetland treatment system did not function well enough to remove nickel and copper in waters still discharging from the mine pit and stockpiles to a concentration that comports to comply with Minnesota WQS, and was rebuilt in 2010. Unfortunately, by 2012, copper, nickel, zinc, sulfate, and hardness concentrations from the treatment wetlands discharges (SD 8 and SD 9), were exceeding WQS. In accordance with a Consent Decree with the MPCA, Cliffs Erie is required to submit a plan for compliance with toxicity final concentration limits at SD008 and SD009 without a variance. Water quality impacts from prospecting and mining operations that have contacted the Duluth Complex are well known to the MNDNR and MPCA. The State of Minnesota spent \$4.3 million over three years in the late 1970s to produce the Regional Copper-Nickel Study, a 5-volume compilation of technical information regarding the potential impacts of copper-nickel mining in the Duluth Complex. Nevertheless, predicted water quality impacts and ineffective mitigation methods referenced in the Study were ignored when the technical documents and SDEIS were drafted for PolyMet. Therefore, water quality impacts have likely been underestimated and the mitigations proposed may not be effective.</p>	COOP01, CU06, WR023
17811	<p>Similarly, the Mining Simulation Project (funded in part by a Minnesota Legislative appropriation of \$185,000 to the MNDNR and MPCA) was a cooperative study to identify and resolve environmental issues associated with non-ferrous mining and to anticipate industry and government data needs to address those issues before commercial development occurred in Minnesota. The study clearly identified those state ground and surface water quality regulations that would apply to copper-nickel mining operations in Minnesota, including applying the 10 mg/l sulfate criterion to effluent discharges where wild rice is present, and prioritized nondegradation of both surface and groundwater and protection of groundwater as a drinking water source, and rejected using natural wetlands for mine effluent treatment (“as a toxic metals dumping ground”).</p>	COOP01, WR110, WR154
17812	<p>Finally, the SDEIS lists the sulfur concentrations of Project waste rock ranging between 0.01-5.0% with an average mass-weighted concentration of 0.15%. The Virginia Formation has the highest concentrations of sulfur 0.4 - 5.0%, and the Duluth Complex 0.13 – 0.6% sulfur. These concentrations are much higher than in Montana’s Zortman-Landusky Mine waste rock (0.2% sulfur)170 that has required perpetual wastewater treatment. And, like Zortman-Landusky, the Project proponent has suggested that “most (70 percent) of the NorthMet waste rock would be the low-sulfur, non-acid-generating” and will never cause acid mine drainage. However, the north wall of the east pit is composed of the Virginia Formation meaning that it will be exposed to both air and water and will likely contribute a substantial load of sulfate and metals to mine pit water.</p>	COOP01, WR173
17867	<p>The USACE has not developed a monitoring plan to assess after-the-fact Project impacts to wetlands, but claims that will be the way to best determine and mitigate indirect wetland impacts...So the SDEIS simply lacks sufficient detail even to comply with NEPA, and contains much less detail than is required to permit sufficient evaluation of potential wetland impacts.</p>	COE02, COOP01
17870	<p>the mitigation measures that the SDEIS does identify are inadequate as towetlands, just as they are for purposes of water modeling.</p>	COOP01, WET01, WET04

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17873	The SDEIS's failure to properly model and mitigate seepage and baseflow rates could result in profound impacts on wetlands...The decision to use an analogue method came from the Wetlands Impact Assessment Planning work group process, in spite of Tribal Cooperating Agency objections...Without a quantitative assessment of the mine-related drawdown of the regional watertable, there is no mechanism to develop an adequate indirect impact assessment method for wetlands.	COOP01, WR071, WR120
17874	the Co-Lead Agencies suggest ombrotrophic bogs...have no connection to groundwater, and therefore assume that drawdown will not affect these wetlands. But data supports at least a partial connection between ombrotrophic wetlands and groundwater...a vertical hydrologic connection between ombrotrophic wetlands and the surficial aquifer is likely and the extent of the hydrologic connection should be investigated.	COOP01, WET09, WR058, WR071, WR166, WR167, WR177
17875	Despite specific and repeated requests from tribal cooperating agencies, the Co-Leads did not elect to utilize a tool developed in 2011 by the EPA in cooperation with tribes, Applying Cumulative Impact Analysis Tools to Tribes and Tribal Lands, in order to discern potential cumulative effects to resources important to the tribes who retain usufructuary rights within the 1854 Ceded Territory.	COOP01, CU03
17877	The SDEIS failed to take into account most of the issues cited [in Appendix C of the SDEIS].	COOP01, CU12
17899	It is reasonably foreseeable that an additional 3,000 acres of wetlands within the watershed will be directly impacted by proposed new mining projects and expansions that are in active permitting and/or environmental review: the Project, U.S. Steel Minntac mine expansion; U.S. Steel Keetac expansion; United Taconite Tailings Basin 3 construction; and Cliffs Erie's mine pit expansion.	COOP01, CU02
17900	The SDEIS also fails to adequately analyze cumulative impacts to the water quality of the Partridge and Embarrass Rivers, much less the St. Louis River.	COOP01, WR024
17901	In fact, in Colby Lake (the community water supply for the City of Hoyt Lakes), aluminum, iron, copper, and mercury concentrations already exceed Minnesota WQS. Modeled concentrations of arsenic also exceed Minnesota WQS. This existing, large number of water-quality exceedences and the suite of constituents, particularly trace metals, that exceed WQS not only confirm the total lack of remediation for the previous mining activities at the LTVSMC site, but demonstrate the importance of evaluating the cumulative losses to water quality. Community drinking water wells, wetland degradation resulting from dewatering, and pollution of community and private drinking water aquifers by previous mining activity must be assessed throughout the St. Louis River watershed as part of this Project, as well as for all the other mining projects currently underway.	COOP01, WR042
17903	The SDEIS does not determine climate change implications of the proposed Project. But the Project has proposed the largest direct wetland fill ever permitted in this region and would disturb extensive areas of peat, which is known to be an important carbon and methane sink. Wetlands in general are recognized as important carbon sinks and areas where wildlife seeks refuge as the climate warms. Nevertheless, to date, virtually all required wetland mitigation for mining impacts has been implemented out of the basin, representing a permanent loss of high quality ecological resources and functions. This omission undermines even the MNDNR's own work. The MNDNR's Moose Advisory Committee, which studies the decline of the moose population in northeastern Minnesota, has recommended preserving wetlands as sanctuaries for moose from heat stress related to climate change.	COOP01, WR077, WR180
17905	Furthermore, underestimation of storm size and frequency is a serious problem for capture and treatment of polluted water from the Category 1 wasterock pile and tailings basin, tailings basin stability, storm water run-off from the Overburden Storage and Layout Area ("OSLA"), and mine pit dewatering. Storm size and frequency is known to be changing. These and other cumulative effects of climate change must be addressed.	AIR01, COOP01, WR180

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<b>Sender Name (Submission ID)</b>	Grand Portage Band (42994)	
17916	Section 106 consultation between the USACE and Tribes is ongoing. Therefore, despite significant changes through recent, increased consultation with tribal cooperators, the Cultural Resources chapter of the SDEIS is still incomplete, and the requirements of the National Historic Preservation Act (“NHPA”)200 have not yet been fulfilled. The Project cannot proceed until they are.	COOP01, CR06
17919	Where, as here, there are historic properties affected, then there is an entirely separate level of adverse-effects assessment that must be performed, again in coordination with consulting agencies.207 In light of these rules, and as the chapter itself acknowledges, it is apparent that far more consultation and site work must be done to comply with Section 106.	COOP01, CR03
17925	The Bands remain skeptical of the Co-Lead Agencies’ claim that there will be no adverse effect to the Spring Lake Mine Sugarbush from the Project. Indirect effects, through dust deposition and unauthorized collection of historic objects, are anticipated because the sugarbush is situated immediately adjacent to the proposed plant site.	COOP01, CR02, CR05
17929	The three properties would benefit from additional investigation. The sugarbush has not been formally recorded. The trail has been adequately documented within the SNF proposed land exchange, but requires additional survey in the upland areas of the project area. Mesabe Widjiu should be considered in its entirety. All three should be formally nominated to the National Register of Historic Places.	COOP01, CR02, CR05
17932	The Project is predicted to increase mercury loadings in the Embarrass River, but decrease mercury loadings in the Partridge River: Treated effluent would be used to augment flow in several Embarrass River tributary streams and Second Creek in the Partridge River watershed that would otherwise experience reduced flow because of the groundwater containment system. Additional water for flow augmentation in the nearby tributaries would be pumped from Colby Lake at periods during mine operations and reclamation. On the face of it, stream augmentation mitigation seems like a good idea. Unfortunately, Colby Lake water has high mercury concentrations that exceed the Minnesota WQS for wildlife. Colby Lake water used for augmentation will add mercury to the Embarrass River watershed both directly and indirectly by drying and re-wetting peat.	COOP01, MERC12, WR184
17933	High mercury concentrations in fish is a significant concern in the Embarrass River now, and mercury will only increase if the Project is allowed to use Colby Lake water for stream augmentation.	COOP01, MERC02, WR184
17934	Dewatering peatlands will also amplify water table fluctuations because peat has high water storage capacity and releases water more slowly than other surficial deposits. Drying and re-wetting peat will increase mercury methylation and release. Peatlands store methane and carbon that will be released into the environment when overburden is removed from the mine pits or during periods of dewatering. This is important in the context of subsistence fisheries and climate change because the temperature of water directly affects the oxygen content and defines what fish can survive. Mercury is also known to bioaccumulate in fish at a faster rate in warmer water.	AQ16, AQ28, COOP01, WET03, WR086
17935	Several lakes and the Partridge River watershed are likely to be negatively affected, which will impact fish species and thus the Band’s 1854 Treaty rights to harvest fish in those water bodies. The SDEIS as written fails to mitigate the costs to fisheries and wildlife species that are protected under the 1854 Treaty...Treaty-reserved fishing rights cannot be fully exercised when fish consumption must be restricted for health reasons to one or two meals per week.	COOP01, CR01
17937	The SDEIS does not adequately address the potential impacts to Band members of a significant increase in mercury in fish harvested both on-Reservation and in Ceded Territory waters...Yet the SDEIS offers no mitigation for these known losses. The SDEIS must be revised to include sufficient analysis and mitigation.	COOP01, CR01
17939	Minnesota’s mercury TMDL process will not adequately address the fishconsumption impairment in these waterbodies, and any new discharges that would result in further degradation to waters with an existing water quality impairment are not be legally permitable under the CWA.	COOP01, MERC11

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<b>Sender Name (Submission ID)</b> Grand Portage Band (42994)		
17940	The cumulative effects of invasive species, mining, and Project effects on sturgeon must be considered and the SDEIS revised.	AQ02, AQ26, COOP01
17944	Although the permitted area is significantly disturbed and will be for the foreseeable future, the closure and reclamation plans will have a significant effect on native vegetation as it is reintroduced. The prevalence of invasive, non-native species and their ability to outcompete native plants in disturbed areas, coupled with PolyMet's plan to introduce non-native and invasive species to this area, would result in significant impacts to cultural resources that have not been discussed in the SDEIS.	COOP01, VEG09
17945	While the SDEIS provides that displaced wildlife will face increased competition for resources, no mention is made whether the displaced animals may cause populations in adjoining territory to approach or exceed carrying capacity. The SDEIS fails to assess cumulative effects of wildlife population changes, not only in the project area, but the entire region.	COOP01, WI05
17948	the value of natural resources maintained in good condition is simply not represented in the SDEIS. Nor is the economic value of clean water provided or assessed.	COOP01, SO04
17949	The SDEIS also speculates that the tribes will benefit economically from the Project through additional visitation to Band-operated Casinos, but provides no data to back up the statement: "Increased employment and income associated with the NorthMet Project Proposed Action could increase visitation and revenues at [area tribal gaming] facilities." This statement is entirely unsupported by any market analysis and must be deleted from the socioeconomic assessment of the Project.	COOP01, EDIT01
20089	after an agency preferred alternative and the LEDPAs are identified, the USACE should re-notice the 404 permit and MPCA should re-notice the 401 certification.	COE04, COOP01
<b>Sender Name (Submission ID)</b> Grand Rapids Area Chamber of Commerce (22390)		
3427	Our Chamber has had a formal resolution in place supporting the PolyMet Project since August, 2007. The reasons we passed this resolution were varied, but included things you've already heard about like positive economic impact, jobs, tax money for the State of Minnesota and funding for schools.	SO10
3429	Today the world needs the precious metals that we have under our feet.	NEPA05
3431	We support the draft EIS and the Supplemental Draft EIS and believe that it provides a sound foundation for the company to seek and obtain the needed permits to operate.	PER34
3593	we have a State policy that calls for responsible extraction of our mineral resources and strong laws and processes in place to ensure that we protect people and the environment when we mine.	PER34
<b>Sender Name (Submission ID)</b> Grant Johnson (18225)		
2189	I believe that this mining is a threat to the environment and to our water supply.	WR195
2190	The environmental threats to our water supply puts risks -- health risks to our towns up north and moreover, even puts at risk the tourism industry up north.	HU03

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<b>Sender Name (Submission ID)</b> Grant Johnson (18225)		
1291	I am disappointed that most of the profits from the mining won't stay in Northern Minnesota or even Minnesota. As we talked about PolyMet, it's not from Minnesota or even the United States.	SO06
<b>Sender Name (Submission ID)</b> grant k (15471)		
690	As a child i frequently visited much of the wilderness on the range and would like it to stay as just that, wilderness. I would like to see northeast minnesota to remain pristine and untouched by industrial pollution so my children will be able to experience the wonder of our pristine lakes and rivers and our great forests.	WILD02
<b>Sender Name (Submission ID)</b> Grant Thrall (10727)		
592	The proposed mining endangers my children, the BWCAW and guarantees Minnesota will be on the hook to pay for the perpetual cleanup of a project that would give a small number of people jobs, and little revenue for the state.	WR037, WR111, WR195
699	Mining for these metals is not in anyone's interest, other than those who would profit financially, foreign or local, in the short term. Our environment is far too precious to even consider damaging our nation's, or Canada's, watersheds in the short term.	SO01
887	500 to 2,000 years of pollution management for the short term gain is unconscionable.	PD01
1172	The SDEIS must be redone, properly, which will provide legal justification for rejecting the sulfide ore mining plan.	NEPA15
1173	Minnesota will be on the hook to pay for the perpetual cleanup of a project that would give a small number of people jobs, and little revenue for the state.	SO01
1485	Please reject the PolyMet NorthMet SDEIS as inadequate. The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	NEPA09
3589	The proposed mining endangers my children, the BWCAW and guarantees Minnesota will be on the hook to pay for the perpetual cleanup of a project that would give a small number of people jobs, and little revenue for the state.	WILD02
8915	Any land swap would be one that would diminish the concept of national forests, especially in favor of a commercial interest. It is also inconsistent with the requirements of federal laws requiring that exchange of public lands be in the public interest and for fair value.	LAN01
13814	It is also inconsistent with the requirements of federal laws requiring that exchange of public lands be in the public interest and for fair value.	LAN03
16979	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	HU01, MERC02, WR041, WR115, WR189
<b>Sender Name (Submission ID)</b> Grant Wesley Anderson (57252)		
17383	The cumulative effects analysis area must include the St. Louis River. The EIS limits the area to the Partridge and Embarrass River watersheds. This decision was not scientifically supported.	CU01
19495	All sulfate protected to enter the river from approved new projects should be used in the estimate even if those projects are not yet [ILLEGIBLE]	CU02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Grant Wesley Anderson (57252)	
19496	The DNR should use the new data from the John Pastor research in setting a lower standard for sulfate impact on wildrice.	VEG04, WR152
<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
2924	In the SDEIS or supporting documents, there is no discussion of tailings pond water exiting the basin into this topographically closed area. There is no accounting for contaminants moving eastward, and there is no description of their possible impact on receiving ground or surface waters.	COOP01, WR054, WR057
2925	Because of the no-flow boundaries, the model output files (Northmet Model Files DVD, BARR July 2012) show extremely unrealistic groundwater heads in the aquifer surrounding the east side of the FTB.	COOP01, WR093, WR097
2950	Staff continue to believe that the underground mine and west pit backfill alternatives have not been properly explored given the environmental benefits they could bring to the project. Our comments stand as detailed in Appendix C.	ALT03, COOP01
2951	In addition, there are a number of alternatives that the SDEIS fails to explore. These include paste backfill, immediate operation of the RO treatment facility at the mine site, etc. Additional details are found in the comments submitted by the Fond du Lac Band.	ALT06, COOP01
2952	Unfortunately the SDEIS has no serious analysis of a No Action Alternative. Section 5.2.2.4 is less than 1 page long and gives a very general and hypothetical discussion. It in no way represents a serious analysis of a No Action Alternative. The SDEIS needs to have modeling of a No Action Alternative	ALT14, COOP01
2953	The concerns regarding the cumulative effects analysis have not been resolved. The information provided in Appendix C is still applicable to the SDEIS.	COOP01, CU12
2959	The ACOE and Forest Service's position in the SDEIS is that these items can be addressed at a later time by the Minnesota Department of Natural Resources in the review of future mining permits. This action is an ill-conceived attempt to abdicate their federal trust responsibility to protect the habitats that support treaty harvests. Despite their attempts, the ACOE and Forest Service cannot delegate their federal trust responsibility to protect habitats that sustain treaty harvests to state of Minnesota when it undertakes the process of permitting the mine.	COOP01, CR01
2961	The superficial estimate of financial assurance provides inadequate detail as to how any of the cost estimates were developed. The DEIS provided a discussion about the options for financial assurance instruments however any substantial discussion of costs and assumptions on the metrics were not provided and instead postponed until the permitting phase of this Project.	COOP01, FIN05, FIN08
2963	The Executive Summary fails to provide: 1) an estimated cost for reclamation, 2) an estimated cost for post-closure maintenance and water treatment, 3) any realistic estimate as to the length of time that post-closure maintenance and water treatment would be required, or 4) information as to how financial assurance instruments would be structured to ensure the costs of post-closure maintenance and water treatment are paid for an uncertain amount of time and for which models indicate would be longer than 200 years at the mine site and 500 years at the plant site.	COOP01, FIN05, FIN06, FIN08
2964	The SDEIS Executive Summary failed to provide either an estimated cost of reclamation or an estimated cost for post-closure maintenance and water treatment.	COOP01, FIN05
2965	The Executive Summary also failed to explain how financial assurance instruments can be established to cover the cost of reclamation and post-closure maintenance and water treatment costs if "it is uncertain how long the NorthMet Project Proposed Action would require water treatment4".	COOP01, FIN08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
2966	The SDEIS provides a listing of items for which costs must be included in the financial assurance instrument (i.e. demolition of all structures and remediation of sites [fencing the perimeters, sloping and seeding the overburden, constructing outlet structures, removing culverts, etc]) yet fails to provide any estimated costs or the basis for these costs.	COOP01, FIN05
2967	The SDEIS notes, PolyMet would ensure that the financial assurance amount is established as a function of at least three main variables: 1) extent of surface disturbance and potential releases from waste storage facilities, 2) reclamation and long-term care standards (including mechanical water treatment), and 3) reasonable assessment of the costs to execute the Contingency Reclamation Plan. The SDEIS provides no discussion as to how these variables are likely to impact overall costs of the financial assurance instrument and how large the variance of cost estimates are likely	COOP01, FIN05, FIN08
2968	The costs provided in Table 3.2-15 provide no basis for their estimation or other assumptions. The SDIES failed to provide detailed costs for the physical closure and reclamation of the mine site that will need to be covered by Financial Assurance Instruments – a detailed discussion as to how much money will be needed from financial assurance instruments and when.	COOP01, FIN05, FIN08
2969	Cost to be covered by Financial Assurance need to include detailed information and cover the following areas: 1) interim operations and maintenance for agencies when a company declares bankruptcy and leaves the site, 2) water management and treatment, 3) removal of hazardous wastes and substances, 4) demolition, removal and disposal of facilities and equipment, 5) earthwork (sloping, backfill, grading), 6) revegetation, 7) long-term operations and maintenance, 8) Monitoring costs, 9) detailed inflation estimates, 9) provide a cash flow analysis, and 10) detail assumptions in the determination of risk and uncertainty.	COOP01, FIN03, FIN05
2970	In addition to providing detailed cost estimation, the final EIS needs to clearly identify and communicate assumptions regarding inflation rates, rates of return, contingencies, and labor rates. Closure and maintenance costs will need to be covered years into the future, so a net present value must be included in the final EIS.	COOP01, FIN05, FIN08
2971	The SDEIS provides a listing of contingencies that may have to be covered by financial instruments... Unfortunately the SDEIS provides no discussion as to any of the costs of the contingencies that are identified. The SDEIS also fails to discuss how financial instruments would be structured to meet those contingencies or the assumptions made by PolyMet to ensure an adequate stream of revenue is available to meet closure and maintenance costs	COOP01, FIN05, FIN08
2973	The SDEIS notes, PolyMet may cancel financial assurance only upon approval by the MDNR after it is replaced by an alternative mechanism or after being released (in whole or in part) from financial assurance. The SDEIS fails to discuss any federal oversight of this process and how the federal government will meet its trust responsibility in protecting habitats that support off-reservation treaty harvests.	COOP01, CR01
3049	Depending on the exact placement of the drain cells, the modified modeling [glifwc conducted] resulted in an estimate of 588 to 847 gpm of flow through the east berm of the basin. This flow is on a scale similar to the flow predicted for the south berm discharge at SD026 (570 gpm, RS13B Draft-01; or 540 gpm, Polymet 2013j). That the predicted discharges at the south berm and at the east berm are similar is logical because both areas are underlain by bedrock valleys filled with high conductivity surficial deposits. In the context of the predicted total discharge from the FTB at year 20 (3340 gpm, RS13B; or 3230 gpm, Polymet 2013j) the 588-847 gpm prediction suggests that approximately 1/5 of the FTB water would exit through the east berm.	COOP01, WR102
3054	NorthMet water management plan version 2 states that the south side seepage capture facility is already operational. The SDEIS further states that the system is operating effectively and capturing all seepage out of the south end of the facility. This statement is factually incorrect.	COOP01, WR117

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
3055	The SDEIS discusses Cliffs Erie site, identifies 62 Areas of Concern (AOC's), and discusses PolyMets role in site remediation. The SDEIS failed to provide any information as to cost estimates for addressing the legal requirements for mitigating the AOC's as identified. This information is needed to ascertain if the proposed project would further contaminant AOC's and increase clean-up/remediation costs.	COOP01, HAZ05
12501	The importance of baseflow in understanding site hydrogeology is hard to overstate. Unfortunately, the quality of flow data collected at the Polymet site is poor and fraught with uncertainty. Because there has not been a Polymet stream gage at the site and Northshore pit dewatering has occurred into the Partridge at varying and uncertain times, all flow data from the site is suspect. Simple upstream, at-site, and downstream flow measurement would have provided higher quality data but was never collected by the applicant nor required by the state.	COOP01, WR003
12502	The mine site water modeling data package very clearly states (SDEIS reference Polymet 2013i, pg 123 & 133) that the 1 cfs added to Goldsim modeling was to account for constituents added to the Partridge by pit dewatering from Northshore; It is not relevant to baseflow calculations nor is it relevant to determination of aquifer conductivity or groundwater travel times.	COOP01, WR005
12504	Polymet Modeling of Flow from the Basin:Polymet modeling with MODFLOW (RS13 Attachment A-6 2007; RS13B Attachment A-6 2008; Polymet 2013j Attachment A 2011), for the FTB has prevented any discharge of basin water to the east by erecting a no-flow boundary at the surface of the berm and at the ground surface. This no-flow boundary is an artificial construct that has no basis in reality. In reality, flow to the east will be controlled by the relative head pressures and the conductivity of the materials in the FTB, beneath the FTB and in the berms.	COOP01, WR093
12510	Geology Beneath the East Berm:Examination of the geologic data for the site indicates that the east berm of the FTB sits on a bedrock valley filled with surficial material that is 25 to 50 feet deep. The bedrock valley under the east berm is the historical stream channel for Trimble Creek prior to the creation of the current tailings basins (Figure 1). The thickness of the surficial material under the east berm is indicated as 25 to 50 feet in the depth to bedrock map of the SDEIS Figure 4.2.2.-12 (Figure 2) and in the depth to bedrock map MN Geological Survey M-126. The distribution of bedrock under the FTB has been represented in 2 ways during Polymet MODFLOW modeling. Technical document RS13 of Nov. 16, 2007 Attachment A-6 Fig. 4-2 showed bedrock in the 2007 MODFLOW model as extending under the eastern quarter of the tailings basin. In technical document RS13b of Sept. 8, 2008 Attachment A-6 Fig. 4-7h, bedrock in the 2008 model did not extend under the basin but rather showed the basin to be underlain with surficial material. The text of RS13b, section 4.6.1 of Attachment A-6 states: "The location of the bedrock hills that flank the Tailings Basin to the east and south were updated. The location of the bedrock hills is used in the model to define the extent of the low hydraulic conductivity zone that represents the bedrock. Because the footprint of the Tailings Basin – Mitigation Design is closer to these hills on the southeast side of the footprint than was the footprint for the proposed design, it was important to get the location of these hills as accurate as possible. The location of the bedrock hills was defined using information from the Minnesota Geological Survey's map M-164. The resulting zones of hydraulic conductivity can be seen on Figure 4-7."The extent of the tailings basin footprint represented in RS13b is the same extent as currently proposed in the SDEIS. However, evaluation of flow from the basin using MODFLOW and Goldsim appears to have fallen back to the 2007 representation of the basin footprint and of the underlying bedrock (see GLIFWC comment re: SDEIS modeling and mitigation basin design).	COOP01, WR094

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Wildlife Commission (42952)

12520 Conceptual Model of East Berm: A conceptual diagram of the east berm is provided below. The head difference between the top of the basin (~1720 ft), the head pressures expected in the surficial deposits below the center of the basin (1700 ft; RS13b, 2008), and the head pressure at the toe of the basin (1660 ft) will push water toward the toe of the east berm. The 25-50 feet of surficial deposits in the bedrock valley under the east berm will conduct water under the east berm and beyond. Revised MODFLOW Modeling of Discharge from East Berm: In order to investigate the approximate magnitude of discharge that would exit the east berm of the FTB, we conducted modified MODFLOW modeling of basin flows in year 20 of the project. To simulate the basin but without the no-flow boundary imposed in previous Polymet modeling, we used the 2008 Polymet MODFLOW model (RS13B Draft-01), with the sole modification being the placement of model drain cells at the east berm. The original 2008 model predicted flows of 3340 gpm from the basins, 570 of which was predicted to flow to the seepage barrier on the south side of the basins (SD026) but no flow to the east because of the no-flow boundary instituted in that model (RS13B Draft-01). Our placement of drain cells in the east berm area of the MODFLOW model enabled water to move east from the berm, rather than reverse flow to the north, west and south as was dictated by the no-flow boundary. The use of drain cells at the east berm to allow eastward movement of water is an identical approach as that implemented by Polymet for the south berm of the tailings basin where the discharge to SD026 is modeled by drain cells. Depending on the exact placement of the drain cells, the modified modeling resulted in an estimate of 588 to 847 gpm of flow through the east berm of the basin. This flow is on a scale similar to the flow predicted for the south berm discharge at SD026 (570 gpm, RS13B Draft-01; or 540 gpm, Polymet 2013j). That the predicted discharges at the south berm and at the east berm are similar is logical because both areas are underlain by bedrock valleys filled with high conductivity surficial deposits. In the context of the predicted total discharge from the FTB at year 20 (3340 gpm, RS13B; or 3230 gpm, Polymet 2013j) the 588-847 gpm prediction suggests that approximately 1/5 of the FTB water would exit through the east berm. Implication of Faulty Modeling of Discharge to the East: At least three problems arise from the current situation of SDEIS modeling of the FTB with a no-flow boundary on the east and inaccurate representation of bedrock: 1) There is no contaminant transport modeling or evaluation of the water leaving the east side of the basin. Without substantial engineering to remove the water, a lake toward the 1680 foot contour would form (Figure 4) until water spilled toward Spring Mine Lake. The Flotation Tailings Management Plan (Polymet 2013m, page16) discusses the need for a drainage swale to release stormwater from the topographically closed area to the east of cell 1E. In the SDEIS or supporting documents, there is no discussion of tailings pond water exiting the basin into this topographically closed area. There is no accounting for contaminants moving eastward, and there is no description of their possible impact on receiving ground or surface waters. 2) There are potential receiving surface waters near to the east berm; wetlands at the toe of the east berm, Spring Mine Lake & Spring Mine Creek to the east, and wetlands and an unnamed creek to the north of the proposed drainage swale. 3) The Polymet MODFLOW modeling was designed to prevent any water from leaving the east side of the basin by establishing no-flow boundaries on that side of the model. Because of the noflow boundaries, the model output files (Northmet Model Files DVD, BARR July 2012) show extremely unrealistic groundwater heads in the aquifer surrounding the east side of

COOP01, WR054, WR056,  
WR102, WR105

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
12525	<p>SDEIS MODFLOW Modeling Appears to be of Fatally Flawed and Discarded Tailings Basin Design. Modeling in the SDEIS appears to be of a Flotation Tailings Basin (FTB) design that was discarded several years ago and does not model the currently proposed basin design. The 2007 FTB design, that is modeled in Attachment A (2011) of Polymet 2013j, was deemed to be "fatally flawed" by the MNDNR (Mitigation Table, Arkley email of 2008/12/09) and was replaced by the "mitigation" design developed in 2008. GLIFWC staff have posed a series of questions to the lead agencies regarding the modeling for water quantity and flow direction at the FTB. ERM has provided a series of written responses to those questions. The 2014-03-10 Response 4 from ERM re: the Plant Site MODFLOW modeling identified Attachment A of the Water Modeling Data package of March 2013 (SDEIS reference Polymet 2013j) as the documentation of the tailings basin flow modeling for the SDEIS. Careful examination of the scant information in the above referenced Attachment A (2011) indicates that the modeling done in 2011 for that attachment was not of the FTB as currently proposed. The footprint modeled for attachment A is the footprint of an early FTB proposal from 2007 (Figure 5) that was supplanted by the FTB design developed during the "Mitigation Options" process of 2008. The 2008 mitigation FTB design (Figure 6) is the current design footprint assumed in the text of the SDEIS (SDEIS Fig. 3.2-23). In addition to using a discarded FTB design footprint, the modeling in Attachment A also used a crude representation of bedrock that was supplanted by a more refined bedrock representation during the modeling of the 2008 mitigation design (RS13B Draft-01, 2008). The diagrams and model files supporting Appendix A (2011) further demonstrate that the modeled footprint is of the 2007 fatally flawed FTB design (see footprints in layer 1 of 2007 (Figure 7) and 2011 (Figure 8) models, attached), instead of the mitigation basin design (see footprint in layer 1 of 2008 model, (Figure 9)). The rejected basin design had a smaller footprint and did not extend as far to the south and south-east. Unlike the current design, the rejected design did not cover the ash disposal site in the south-east end of the FTB. It appears that the SDEIS Goldsim (water quality) modeling is based on MODFLOW (water quantity) modeling of an old FTB design that was deemed fatally flawed and is not modeling the currently proposed FTB design.</p>	COOP01, WR094, WR098

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<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
12541	<p>Perpetual Water TreatmentThe proposed Polymet project would require long term treatment of water at both the plant and mine sites. This treatment would be needed for centuries but the lead agencies have not required that the applicant provide an estimate of when treatment would no longer be needed. Therefore, as articulated in Chapter C, GLIFWC staff maintain that water treatment for the proposed Polymet mine is perpetual.GLIFWC staff are gravely concerned that the lead agencies are attempting to minimize the issue of perpetual/long term treatment by using vague and confusing language in the SDEIS. In addition, the language the lead agencies have used has changed during the development of the document even though the model results have not. The SDEIS states on page 5-7: “Mechanical water treatment is part of the modeled NorthMet Project Proposed Action for the duration of the simulations (200 years at the Mine Site, and 500 years at the Plant Site). The duration of the simulations was determined based on capturing the highest predicted concentrations of the modeled NorthMet Project Proposed Action. It is uncertain how long the NorthMet Project Proposed Action would require water treatment, but it is expected to be long term; actual treatment requirements would be based on measured, rather than modeled, NorthMet Project water quality performance, as determined through monitoring requirements.” (Emphasis added)In response to comments on the PSDEIS (Comment GLIFWC1) the Co-Lead agency disposition states: “Modeling predicts that treatment activities will be a minimum 200 years at the Mine Site and a minimum of 500 years at the Plant Site. While long-term, these time frames are not necessarily perpetual. The owning company would be held accountable to maintenance and monitoring required under permit and would not be released until all conditions are met” (Appendix C SDEIS) (Emphasis added)It is impossible to reconcile these 2 statements. We agree that the duration of simulations were based on capturing the highest predicted concentrations of the modeled action. However, those concentrations require water treatment to avoid violating water quality standards. This treatment is at minimum 200 years at the mine site and 500 years at the plant site. As the lead agencies indicate, these time estimates are only minimums and there is no information that points to a time when water treatment would not be needed. Finally, while the maximum contaminant plume is predicted to occur at the 200 and 500 year mark for the mine and plant sites respectively, this does not mean that contaminants immediately drop to zero. The reduction would be gradual and perhaps last for another few centuries. In addition the SDEIS states on page 5-56: “The attenuation effect resulting from sorption is significant enough that arsenic, copper, and nickel are not predicted to travel from source areas to any evaluation locations or the Partridge River within the 200 year model simulation period (Barr 2013f). Analytical calculations suggest that the travel times for these solutes would be in the order of thousands of years.”This statement suggests that water treatment activities would be required far beyond the 200 year time frame at the mine site and would be on the order of thousands of years. Therefore, the only logical conclusion is that water treatment is perpetual at this project.It is also important to note that, in the response to GLIFWC comments on the PSDEIS, the lead agencies acknowledge monitoring and maintenance requirements during the same 200 (mine site) and 500 (plant site) year timeframe.The SDEIS requires substantially more transparency on one of the most fundamental issues at stake for this project. The fundamental question is: how long will the company be required to operate and maintain expensive mechanical treatment to meet water quality standards? This singular issue has significant repercussions for the public interest determination</p>	COOP01, FIN05, WR035, WR036, WR037

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<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
12544	<p>Indirect Wetland Impacts. The methods used in the analysis of indirect wetland impacts in the SDEIS are essentially the same as the 2009 DEIS. GLIFWC staff reiterate the comments we have provided in the past that the method is overly simplistic, based on a flawed conceptual understanding of hydrology at the mine site and inadequate for the NEPA process of a large scale sulfide mine. The SDEIS has underestimated baseflow at the mine site. The entire conceptual model of perched wetlands with hydrology that is completely decoupled from groundwater was supported by the use of unrealistically low baseflow numbers. Now that the applicants XP-SWMM model has been discredited and that it is obvious that the movement of groundwater at the mine site is 3 times greater than the SDEIS indicates, the assumption that wetlands will not be impacted by groundwater drawdown should be abandoned. The higher baseflow numbers support the independent analysis of indirect wetland impacts provided by the tribal cooperating agencies in Appendix C. The lead agencies have also based their analysis on the Bog Memo prepared by the Army Corps of Engineers (Eggers, Steve (2011) MEMORANDUM SUBJECT: Distinguishing Between Bogs That Are Entirely Precipitation Driven Versus Those with Some Degree of Mineral Inputs from Groundwater and/or Surface Water Runoff). This memo uses plant community information to determine the degree of hydrologic connectivity between a wetland and groundwater. The conclusions in the memo are appropriate for a system that is not experiencing depressurization of the aquifer (drawdown). However, when mine induced drawdown occurs, new downward pressure gradients are created. Whittington and Price documented that these downward hydrologic gradients can in fact dewater wetlands that are entirely surface water dependent under normal conditions (Whittington, PN and JS Price, The effects of water table drawdown (as a surrogate for climate change) on the hydrology of a fen peatland, Canada.) HYDROLOGICAL PROCESSES, 20(17), 3589-3600. 2006). The bog memo is not an assessment of the hydrologic conditions of wetlands in a dewatered state but rather an assessment of surface hydrology under normal conditions. The indirect wetland impact analysis should be performed using realistic hydrologic assumptions and appropriate mitigation should be required.</p>	COOP01, WET08, WR003, WR175

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<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
12566	<p>Seepage Capture Efficiency. As detailed in comments submitted to the lead agencies for the 2009 DEIS and for the current SDEIS, water quality analyses for the Partridge and Embarrass Rivers are inadequate. The results, be they deterministic (DEIS) or in the form of probability distributions (SDEIS) are based on a flawed understanding of hydrology at both mine site and plant site. This flawed understanding, reflected most prominently in the errors in baseflow calculations, is carried forward to the MODFLOW hydrologic modeling. At the mine site MODFLOW under-predicts the amount of water that would flow into the mine pits and thus under-predicts the amount of water treatment needed for both short and long term closure. At the plant site, the MODFLOW model is constructed in a way that is not representative of reality and therefore yields results that are not logical. The lead agencies appear to disregard these problems because there is faith that the seepage capture and treatment systems will work at over 90% effectiveness for centuries. The SDEIS claims of long term compliance with applicable water quality standards depend entirely on this leap of faith. On conference calls scheduled to discuss these issues, the lead agency consultants have stated that the effectiveness of the capture systems have not been questioned and the lead agencies have not been able to provide any references that would support their position. We suggest that there are substantial reasons for skepticism regarding capture efficiency for the flotation tailings basin, hydrometallurgical tailings basin, and category 1 stockpile seepage capture systems. This skepticism is based on available literature and the performance of other facilities in the immediate vicinity. The EPA conducted an analysis of the effectiveness of seepage capture systems (Evaluation of Subsurface Engineered Barriers at Waster Sites, United States Environmental Protection Agency (EPA), 1998). This analysis looked at capture systems at 36 facilities and evaluated their effectiveness based on the performance requirements at each site. It is difficult to extrapolate the results of this analysis to the Polymet setting because a) the required effectiveness varied from facility to facility; b) the way in which effectiveness was measured was different (i.e. water quality improvements downstream versus change in hydrologic head pressure) and c) data collection varied between facilities. Despite these difficulties, the report indicates that 10% of the reviewed containment systems failed to meet the desired performance objectives and required corrective action. An additional 19% of the evaluated facilities did not have sufficient data to conclude whether the containment system was operating successfully or not. Furthermore, there is no information on the effectiveness of any of these facilities at timeframes remotely comparable to the needs at Polymet. In the EPA report, long term is considered 30 years whereas the water capture needs at Polymet are perpetual for the flotation tailings basin, category 1 stockpile and hydrometallurgical tailings basin. Finally, none of the facilities in the study are as large as the one proposed at Polymet. At the tailings basin, Polymet has proposed to install a seepage collection system around the north and west sides of the facility. The scale of this engineering control is extensive. It would be approximately 5 miles long and would have to be keyed to bedrock that is 25 to 50 feet below ground surface. The most likely pathway for leakage at this barrier will be in the vicinity of the key with bedrock (EPA 1998). This feature, and the similar containment system at the Category 1 waste rock stockpile are assumed to capture 93% of water leaving the facilities for an indeterminate period of time. As previously stated, there is no scientific justification for this number. The only examples we are able to identify at this time suggest capture rates that are lower. In t</p>	COOP01, WR003, WR009, WR010, WR013, WR018, WR019, WR020, WR099, WR117, WR123
12568	<p>Summary for Seepage Capture Comments. The prediction of water quality standard compliance for this proposed project hinges on the perfect operation of the water capture systems. The reliance on this engineered containment system that uses overly optimistic capture rates and must function in perpetuity is not scientifically supported and therefore is not appropriate for the SDEIS. The water quality and quantity impacts at both plant site and mine site should be remodeled by using a range of capture efficiencies. We suggest 60%, 70%, 80% capture rates be modeled for the tailings basin and category 1 stockpile. Water quality values for each of these capture rates should be reported. This will allow the public and decision makes to have a realistic picture of the risk and uncertainty for this project. Seepage capture at the flotation tailings basin does not account for seepage out of the east side of the basin. The seepage capture system should be expanded to account for this expected discharge. A MODFLOW model was developed to assess the amount of seepage that would flow out of the basin. As detailed in GLIFWC comments, that model is designed in a way that does not conform to reality and therefore the results are unreliable.</p>	COOP01, WR017, WR018, WR022, WR035, WR093, WR129, WR133

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<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
12573	Ability of Goldsim to Accurately Predict Contaminant Concentrations: We remain concerned about the inability of Goldsim to accurately predict current and future contaminant concentrations. This is particularly troubling in the lower Partridge River (e.g. SW005) and in Colby Lake where Goldsim predictions of current conditions appear to be inaccurate. In recent conversations with the lead agencies and ERM, there has been agreement that the modeling in the SDEIS does not accurately capture the environmental conditions at Colby Lake. Additional modeling of this waterbody is needed to assess impacts of the proposed project and to evaluate the suitability of Colby Lake water for use in augmenting the flow of other waterbodies. In addition, the discrepancies between modeled and observed data at SW005 should be addressed in detail.	COOP01, WR049
12575	The SDEIS does not adequately address mercury concerns.	COOP01, MERC01
12580	Wild Rice Standard. The concerns over the MPCA's interpretations and recommendations regarding the wild rice sulfate standard have not been resolved. The information provided in Appendix C is still applicable to the SDEIS. In addition, staff believe that water quality modeling underestimates the amount of sulfate at points of compliance. Even with this problem, contaminant modeling suggests that the sulfate standard will be violated in the Partridge River points of compliance approximately 10% of the time. While this may meet the lead agencies arbitrary evaluation criteria (standard met 90% of the time) it certainly is not enough to warrant the issuance of an NPDES permit. At the Embarrass River the standard is already exceeded at the point of compliance because of historic contamination from the tailings basin and the area 5 pits. It is not clear if the capture system around the tailings basin will function well enough to allow the standard to be met.	COOP01, WR152, WR153, WR154
12601	Impacts from Rail Car Spillage. The concerns regarding the hydrologic impacts of sulfide ore dust spillage along the rail corridor have not been resolved. The information provided in Appendix C is still applicable to the SDEIS.	COOP01, PD07, WR151
12602	Loss of High Biodiversity Significance Values Sites. The concerns regarding the loss of high biodiversity sites such as the 100 mile swamp, Lynx and Moose habitat and remaining wildlife corridors have not been resolved. The information provided in Appendix C is still applicable to the SDEIS.	COOP01, WI04, WR080
12604	The Supplemental Draft Environmental Impact Statement (SDEIS) NorthMet Mining Project and Land Exchange failed to adequately address closure and maintenance costs and length of time for post-closure treatment in the context of financial assurance requirements.	COOP01, FIN05
12605	Within the 54 pages of Executive Summary only a single paragraph addresses the issue of financial assurance as noted below:	COOP01, FIN08
12607	The SDEIS failed to clearly state how the State of Minnesota will determine the maximum bond requirements,	COOP01, FIN05
15020	In determination of baseflow, all GLIFWC's calculations have excluded Northshore pumping from the calculation. The Dec. 17th MNDNR memo (Attachment A) also picked a period when pumping for Northshore pit dewatering was not occurring so as to calculate true baseflow. The 1 cfs added to GoldSim modeling of the Partridge, mentioned in various DNR documents, is irrelevant to the calculation of baseflow and does not solve the modeling problems in XP-SWMM, MODFLOW and by extension GoldSim. Some of the implications of incorrect baseflow are highlighted on page 114 of the water modeling data package (March 2013), in our memo of 2012-03-02, and in GLIFWC's baseflow summary of 2014-02-13 (Attachments B, C, and D respectively).	COOP01, WR052

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<b>Sender Name (Submission ID)</b>	Great Lakes Indian Fish and Wildlife Commission (42952)	
15021	Because the implications of baseflow are substantial when it comes to a basic understanding of the mine site hydrogeology, all modeling of flow and by extension contaminant transport must be re-calibrated to the higher baseflow numbers indicated by GLIFWC's analysis of 2013-07-02 (Attachment E) and DNR's 2013-12-17 analysis (Attachment A). Page 114 of the mine site Water Modeling Data Package makes it clear that re-calibration of the MODFLOW model generates new conductivity values that are then fed into Goldsim. It states: "The revised model calibration resulted in different optimized values for the horizontal hydraulic conductivity of the surficial aquifer and bedrock, which are used to establish the distribution of values used for the probabilistic groundwater flow path modeling (Section 5.2.3.1)." It is also clear that higher hydraulic conductivities for the aquifers result in faster contaminant transport to points of evaluation.	COOP01, WR003
15022	Although baseflow assumptions have significant effects on Goldsim modeling, the implication of re-calibrating the MODFLOW model go beyond the conductivities used in the GoldSim modeling. Higher baseflows imply higher conductivities that imply faster and greater groundwater flow rates. This affects:1) The amount of water expected to flow into the mine pit as it is excavated.2) The amount of drawdown of Partridge River flow that can be expected due to pit dewatering.3) The amount of wetland dewatering that can be expected due to pit dewatering.Given the uncertainty in baseflow numbers due to the poor quality flow data, it is reasonable to re-calibrate the MODFLOW model to a range of values that included the previously assumed baseflow and the newer, higher baseflow numbers.	COOP01, WR003, WR086, WR094, WR098, WR165, WR166
15023	Discharge From East Berm of Flotation Tailings Basin:Significance:The contaminant transport analysis at the Flotation Tailings Basin (FTB) does not include any accounting for discharge through the east berm of the basin. There are 3 reasons why discharge through the east berm will be enough to cause environmental concern:1) the flow distance between the final FTB pond in cell 1E and the exterior of the east berm is relatively short compared to flow distances from the pond to the north and west berms (SDEIS Figure 3.2-29).2) the east berm is underlain with 25-50 feet of conductive surficial material (SDEIS Figure 4.2.2.-12 and Figure 2 below).3) the basin pond level is 1720 ft, the land elevation east of the basin is 1660 ft (Lidar data: <a href="http://www.mngeo.state.mn.us/chouse/elevation/lidar.html">http://www.mngeo.state.mn.us/chouse/elevation/lidar.html</a> ). The elevation difference between the pond and the adjacent land surface is substantial; 1720 ft - 1660 ft = 60 ft.	COOP01, WR054
15024	Discharge From East Berm of Flotation Tailings Basin:Significance:Because there has been no prediction of discharge from the east side of the FTB, there was no flow path established or contaminant transport analyzed in the easterly direction. The SDEIS is completely devoid of any mention or analysis of flow from the basin toward the east. Receiving waters for the contaminated discharge would be wetlands adjacent to the basin, Spring Mine Lake, Spring Mine Creek and wetlands to the north if a proposed storm water drainage swale is constructed.	COOP01, WR054
<b>Sender Name (Submission ID)</b>	Great Northern Solar (43595)	
12503	The mine plan inaccurately describes wild rice waters, understating the area that supports stands of wild rice.	VEG04, WR154
15467	the mine plan claims to reduce sulfates, but that assumes that expensive water treatment will continue for hundreds of years. Millions of gallons of untreated polluted water will escape every year, and the mine plan predicts an increased chance that water exceeding the sulfate standard will be released at times, years after closure.	PD03
15469	The company's own computer models show that hundreds of years after the mine closes, water seeping into groundwater and flowing into streams and rivers at the site will be polluted with heavy metals and sulfates. Unless all of this water is captured and treated, the mine will pollute surrounding waters.	WR115, WR128
15472	Minnesota law requires that a closed mine site be "maintenance free," but PolyMet's mine plan calls for hundreds of years of monitoring and expensive water treatment. Worse, these models don't even show that the pollution stops after 500 years. They just stopped modeling at 500 years. In other words, the pollution could go on for even longer.	WR037, WR195

*Alphabetical by sender's first name*

**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)**    Great Northern Solar (43595)

15474 PolyMet would be a huge consumer of electricity, much of it coming from the dirtiest coal power plants in Minnesota. PolyMet’s electricity supplier, Minnesota Power, got 85% of their power from coal in 2013.    AIR02, PD39

15480 The tax estimates in the PolyMet mine plan lack detail, are full of discrepancies and contain [un]explained changes. From one draft of the mine plan to the next the estimated taxes jumped 500% without explanation. This is important, since the state taxes that would apply to a copper-nickel sulfide mine have never been used before.    FIN05

15483 The copper-nickel mining industry is exempt from several state and local taxes, such as property tax and corporate income tax, and has its own unique tax structure. Therefore, the State of Minnesota should confirm these tax estimates, and not just rely on the company to provide them.    SO04

**Sender Name (Submission ID)**    Greg Allen (18106)

3349 PolyMet mining will bring in new jobs, which will bring in new families. School enrollments and our ability to add teachers, class offerings and new technology will increase as a result.    SO10

13472 Many districts have been forced into short-term borrowing to cover costs. Schools on the range do not receive property tax from the mines. They receive a taconite tax, when the mines are producing. This extra funding helps, but it is not stable funding. PolyMet mining will bring in new jobs, which will bring in new families.    SO10

**Sender Name (Submission ID)**    Greg bastien (43115)

11700 At the financial hearing conducted by the House it was clear that the review process for possible catastrophic events only takes in short term events. The failure of a holding pond or undetected ground water infiltration could leave the state with liabilities that extend to other states and Canada with only sufficient funds to handle short term plugging of holes. The \$2-4 billion down payment in a trust fund would be difficult to administer and with successors likely for the company in the future distributing any excess at the end of the period when the material from the mine is safe would be problematical.    FIN01, FIN05, FIN08

11704 the reuse of the old mine facilities is economically prudent for the company the difference in sulfide mining and taconite mining is considerable and the safety net for water resources is and would be insufficient. All ponding would have to meet a 300-500 year impermeability standard. All processing would have to be contained with no release to outside air and water.    PD27, WR195

11707 While not impossible these safeguards would drive the cost so high that the promised 20 year window of production would close much sooner the short term gain would be that much less with fewer jobs and less payroll.    SO02

**Sender Name (Submission ID)**    Greg Benedict (26618)

15253 The more forest/protected land that goes to these giant excavations, the more pollution and disruption of natural processes will occur. ... Many push the idea of money over everything. Its never about the everyday people who make connections, memories, and above all harmony with the land.    SO01

15254 I would feel deeply disappointed if I witnessed any more significant damage to the places I love to visit like Superior National Forest and BWCAW. They aren't just places to go, they are places that facilitate spiritual growth and understanding. Places that are relaxing, slow, peaceful, and calm. The experiences of complete wilderness are beyond anything in a book.    WILD02

**Sender Name (Submission ID)**    Greg Boom (6198)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Greg Boom (6198)		
1056	This project will create tax money which every state needs. It will provide jobs for a area that is not over flowing with employment	SO10
1186	Minnesota has strong environmental laws - Polymet will be environmentally responsible. The environment safety will be covered by Minnesota laws.	PER34
<b>Sender Name (Submission ID)</b> Greg Chester (51269)		
3603	The Land Exchange sacrifices our sacred lands to a foreign corporation, not for the public interest.	CR01
3604	It will endanger both a valuable watershed and Lake Superior, one of the larges fresh water lakes in the world. Its diminution or loss resulting from this and several other existing and proposed mines would be a global tragedy.	WR111
3605	Rejecting the PolyMet SDEIS as inadequate, the proposed PolyMet sulfide mine, and Land Exchange would be for the long term benefit of those of us living in the region. The dangers far outweigh the benefits.	AIR11
9980	This is one of the last areas left where a person can sink a 25 foot well and drink sweet clean water. Please do not poison this area like others have done with so much of the rest of it.	WR041
9981	Mercury is just one threat to our environment and health...The threat to humans is very real as well as eagles and osprey.	WI04
9982	The cost benefit ratio shows that we may lose far more than we gain from the mine. What tourist would want to leave an urban environment to come to a contaminated rural area?	SO01
12507	The Land Exchange sacrifices our sacred lands to a foreign corporation, not for the public interest. The Land Exchange won't unify ownership of federal lands. Nearly all of the lands in the exchange have split mineral rights and no legal barrier to surface mining.	LAN04
12508	It will endanger both a valuable watershed and Lake Superior, one of the larges fresh water lakes in the world.	WR111
12512	Rejecting the PolyMet SDEIS as inadequate, the proposed PolyMet sulfide mine, and Land Exchange would be for the long term benefit of those of us living in the region.	SO10
12514	The dangers far outweigh the benefits. We live here for the clean air, soils and water and the health of our future generations. And we honor our treaties with the Ojibwe Nation	AIR11
16203	[Lake Superior's] pristine waters are far more valuable than the momentary gains of a temporary mine.	SO01
<b>Sender Name (Submission ID)</b> Greg Jackson (43688)		
11913	I am a supporter of extraction and manufacturing jobs, especially in economically depressed areas, however, I am not convinced that the proposal as it stands now will guarantee that a) negative environmental impacts will be avoided, and b) that jobs created will last and profits from the extracted minerals will stay in Minnesota.	SO01
11914	I am concerned that the analysis has not fully included the economic benefits of the landscape as is - including the recreational use, bequest, and existence value so many Minnesotans and Americans place on the Boundary Waters.	SO04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Greg Korelich (17613)		
2102	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for--information that is necessary to evaluate the environmental effects of this proposal.	FIN08, PD03, WR035, WR128
2103	More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering.	WET24
2104	...sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
2105	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Greg Pittelli (57539)		
19510	Berkeley Pit. Learn from it. Don't destroy this beautiful place forever. Minnesota is smarter than that.	WR023
<b>Sender Name (Submission ID)</b> Greg Solberg (1)		
1	Please read this: <a href="http://pub.epsilon.slu.se/1874/1/Kappan_Avhandling_nr_08.88.pdf">http://pub.epsilon.slu.se/1874/1/Kappan_Avhandling_nr_08.88.pdf</a>	REF01
2	From a stockpile duration how long is temporary?	PD15
3	Research shows that within 3 months - acid mine drainage starts to occur. Might be 30 years in a test tube, but in the wild - it can start in 30 days.	WR001, WR034
4	Could you provide us with examples of where this so-called technology [water capture, containment, and treatment systems] is being used successfully in other sulfide mining operations around the world?	WR020, WR023
5	How much will it cost to treat the water for upwards of 500 years, and who will pay for it? We all understand that as soon as the mining companies are finished extracting - they are gone.	FIN01, FIN05
8582	Any reasonable human can see that the amount, length of time, and obvious monetary obligation of water treatment is enough to say no, not yet, to non-ferrous mining. Not to mention it's very clear that RO won't work. PolyMet says it will. Fair enough, show us examples please.	PD03, WR023, WR037, WR128
8582	Any reasonable human can see that the amount, length of time, and obvious monetary obligation of water treatment is enough to say no, not yet, to non-ferrous mining. Not to mention it's very clear that RO won't work. PolyMet says it will. Fair enough, show us examples please.	FIN16, FIN17
8583	It just absolutely boggles my mind that you would even consider this type of mining at this time. Someday? Sure. When the technology has come far enough to guarantee it can be done without causing harm to the environment, and with minimal damage to the landscape. That clearly is not the case which exists today... FYI: the metals aren't going anywhere.	NEPA03, PD32
8583	It just absolutely boggles my mind that you would even consider this type of mining at this time. Someday? Sure. When the technology has come far enough to guarantee it can be done without causing harm to the environment, and with minimal damage to the landscape. That clearly is not the case which exists today... FYI: the metals aren't going anywhere.	PD32

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Greg Solberg (1)		
12967	I do not believe the technology exists to do this without causing environmental damage. If it does, mining companies would be using it.	WR128, WR195
12968	It's my sincerest belief that, contrary to you and the mining companies, these mining operations will produce acid rock drainage.	WR001
12971	Please read this: <a href="http://pub.epsilon.slu.se/1874/1/Kappan_Avhandling_nr_08.88.pdf">http://pub.epsilon.slu.se/1874/1/Kappan_Avhandling_nr_08.88.pdf</a>	REF01
13925	If I'm not mistaken, the first failed EIS draft said that the sulphur content was 4%. And at the time, they tried to tell us that 4% was considered low. It is not, and now the concentrations seemed to have changed. Can you explain?	PD30
18139	it's very clear that RO won't work. PolyMet says it will. Fair enough, show useexamples please.	PD03
18139	it's very clear that RO won't work. PolyMet says it will. Fair enough, show useexamples please.	PD03
18141	The government also needs to come to its senses and take away the DNR'sresponsibility of either the promotion of mining or the protection of the environment. Certainly doesn't take a rocket scientist to realize that the same entity cannot possibly do both.	PER42
18141	The government also needs to come to its senses and take away the DNR'sresponsibility of either the promotion of mining or the protection of the environment. Certainly doesn't take a rocket scientist to realize that the same entity cannot possibly do both.	PER42
<b>Sender Name (Submission ID)</b> Greg Swanson (38431)		
13629	While a boost to our economy is always tempting, any long term adverse environment impacts will certainly vastly overshadow any short term economic benefits. Our healthy natural environment is our legacy to our successors, not our bankbooks.	SO01
13631	The SDEIS for the Poly Met Mining Project is flawed and does not guarantee that sulfide mining can be done in Minnesota without seriously harming water and habitat.	PD29
<b>Sender Name (Submission ID)</b> Greg T. Lehman, MD (42914)		
9496	We [health professionals] are concerned that the proposed PolyMet NorthMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water.	HU03
9498	We [health professionals] also believe that the PolyMet NorthMet Supplemental Draft Environmental Impact Statement ("PolyMet SDEIS") fails to adequately assess important risks to human health from the pollutants that would be released from this project.	HU01
9500	We [health professionals] would respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal.	HU01
9501	We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Impact Assessment (HIA) be prepared under the guidance of the Minnesota Department of Health.	HU01
9503	Mercury contamination of fish and impacts on neurotoxicity in the developing fetus as well as in infants, children and adults is a significant public health concern in Minnesota.	MERC03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Greg T. Lehman, MD (42914)		
9505	The Minnesota Health Department found 1 out of 10 infants in Minnesota’s Lake Superior Region are born with unsafe levels of mercury in their blood.	MERC03
9506	We are aware that many of the bodies of water downstream of the proposed PolyMet mine and plant are legally impaired due to mercury in fish tissue.	MERC02
9507	The lower reaches of the St. Louis River, where the estuary for Lake Superior fish is located, contains a particularly high level of mercury.	MERC19
9508	We also know that other mine facilities release both mercury and the sulfates that increase bioaccumulation of methylmercury.	MERC20
9509	Reviewing the PolyMet SDEIS, we believe that the information on mercury releases and the potential for mercury bioaccumulation is insufficient.	MERC20
9511	he SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of pollutants or of hydrologic changes on mercury bioaccumulation.	MERC20
9512	The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	MERC15
9513	We would further request that the PolyMet SDEIS be determined inadequate pending supplementation to include a Health Impact Assessment, under the direction of the Minnesota Health Department.	HU01
9514	An HIA would integrate human health into the environmental review for the PolyMet NorthMet proposal, allow consideration of mitigation measures, and involve the community in planning for the project.	HU01
<b>Sender Name (Submission ID)</b> Greg Tiburzi (11631)		
2313	The Polymet mine wastewater is in the Lake Superior watershed; polluted waters from the mine will affect this watershed and Lake Superior for years to come	WR111
2313	The Polymet mine wastewater is in the Lake Superior watershed; polluted waters from the mine will affect this watershed and Lake Superior for years to come	WR111
2314	This mine will clear the path for other mines, and will surely affect the Hudson Bay watershed and the pristine land and waters of the BWCA.	WILD02
2314	This mine will clear the path for other mines, and will surely affect the Hudson Bay watershed and the pristine land and waters of the BWCA.	WILD02
8185	Northern Minnesota has a one-of-a-kind wilderness setting that cannot be found elsewhere. It is a source of health and inspiration for us all. We should not squander it.	WILD02
8185	Northern Minnesota has a one-of-a-kind wilderness setting that cannot be found elsewhere. It is a source of health and inspiration for us all. We should not squander it.	WILD02
<b>Sender Name (Submission ID)</b> Gregg Hoffman (54122)		
15985	PolyMet should be required to make a cash deposit to the state in the amount necessary to pay for any environmental problems they create, this deposit may be refunded when all risks to the environment have passed (I believe this is estimated to be in 200 to 500 years).	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Gregg Wiitala (9289)		
84	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed.	WR003, WR086
85	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number.	PD04
89	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump.	WR010, WR061, WR069, WR168
91	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site	FIN01, FIN10
93	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats.	WR189, WR202
<b>Sender Name (Submission ID)</b> Gregory and Mary Johnson (39301)		
8673	There are too many risks, too few rewards, too many unproved assumptions, too little data on long-term damage, and poor judgement on damage that is admitted will take place.	SO01
8687	The massive amount of waste rock containing sulfides (to extract the small percentage of copper and nickel present) will form pollution that would need to be treated for between 200-500 years or more...no one has a good grasp of exactly how long this would take of if the treatments would succeed on this scale and for this time frame, let alone how much it would cost or who would end up paying for it.	FIN05
8689	The damage to wetlands in a water rich area is a matter of anyone's guess. The idea that the company could replace these wetlands somewhere else, thus minimizing the damage is ludicrous. Where this has been done on much smaller scales, it has proven to be inadequate and will do nothing to aid the area in question.	WET24
8698	Digging such a huge hole could quite likely drain water out of the surrounding areas, with the attendant negative results on all kinds of wildlife, flora, fauna and the current ecosystem that has developed over hundreds and thousands of years.	VEG07, WI06, WR179
8709	Northern Minnesota is the site of three major watersheds. Why would we want to risk polluting this precious resource? In the future, clean water could be Minnesota's most important resource.	WR111
8712	All rock contains fissures, the proposed lining will be subject to heavy equipment damage, acid can leak through to ground water, etc. What would happen in an extreme weather event, such as excessive rain?	GT10, GT12, WR012, WR127
8713	Inadequate research has been done related to the flow and movement of water in the area, the effect on the Partridge River, St. Louis River and ultimately its flow into Lake Superior.	WR003, WR024, WR042, WR081, WR111, WR158, WR159
8715	Other areas where there is inadequate research on potential harm include the sulfate concentration effects on wild rice beds	VEG04, VEG06
8716	Other areas where there is inadequate research on potential harm include the...mesothelioma effects on workers and public health...	HU04
8717	Other areas where there is inadequate research on potential harm include the... increased mercury pollution on public health...	HU01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gregory and Mary Johnson (39301)		
8718	Other areas where there is inadequate research on potential harm include... increased greenhouse gas emissions from using coal-generated electricity.	AIR01
8728	Historically, mining companies have been unreliable partners. PolyMet is the "junior" company and has never operated a mine before. The "major" company is Glencore, one of the largest international mining companies with a long history of environmental pollution...	SO02
<b>Sender Name (Submission ID)</b> Gregory B. Gregory (31738)		
11991	A decision in favor of PolyMet's proposal would open a floodgate of more sulfide mining in a large area near Lake Superior and surrounding the Boundary Waters Wilderness -- considered by some as one of the most beautiful wilderness areas in the world.	WILD02
13852	If approved, the mine will pollute Lake Superior, threaten our clean water and wild lands, and endanger public health for generations to come.	HU03, WR111, WR115
<b>Sender Name (Submission ID)</b> Gregory Garmer (39735)		
7054	If one sulfide mining operation is allowed, then all others will demand equal treatment under the law. If each company digs for twenty years and then leaves behind a source of pollution that will have to be monitored and managed well into the future, pretty soon mining scars and environmental watch areas will sprout all over Northeastern MN. There is no sure way to manage the results once the Pandora of sulfide mining is let loose.	PER07
12974	If one sulfide mining operation is allowed, then all others will demand equal treatment under the law. If each company digs for twenty years and then leaves behind a source of pollution that will have to be monitored and managed well into the future, pretty soon mining scars and environmental watch areas will sprout all over Northeastern MN.	CU04
<b>Sender Name (Submission ID)</b> Gregory Johnson (17713)		
1990	Reverse osmosis has three streams: plant feed stream and in this case, per miningtruth.org's web site, this is 6.5 million gallons a day; plant discharge stream which in this case would be less than 10 ppm sulfate discharge from the plant; and the reject stream which in this case would be 10-15 percent of the feed stream. This reject stream of 700,000 or so gallons per day would contain 98 to 99 percent of the feed sulfates. My concern is in how the reject stream is treated and whether this concentration effect over the life of the mine is being evaluated.	PD03, WR143
1991	The professors talked about the ability of the wetlands to diminish and treat the waste [discharge]. What is the proof of this? ... Absorbent systems have a finite capacity and I am concerned that this has not been addressed in a scientific way. My understanding from the presentation is that the flow rate used in the study is significantly lower than the actual flow rate at the site.	WR137
1992	The aquifer is very shallow, 20-60 feet, and digging several very large 700 foot deep pits has got to have an effect on the wetlands. I was dismayed by the assumption that this was not a factor that needed to be addressed. I think this project would impact far more than 900 acres of wetlands.	WET24
<b>Sender Name (Submission ID)</b> Gregory M Anderson (54556)		
18963	The risks are too great to the environment. I fear the clean up operations will offset any profits.	SO01
<b>Sender Name (Submission ID)</b> Gregory N Rautell (57208)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Gregory N Rautell (57208)		
17121	Only thing this is going to benefit is the politician’s pocket books.... And when they are done making their millions of dollars they will pull out and leave the taxpayers to clean their mess up.	FIN01, FIN10
17122	This mining is going to pollute the land and waters so my grandkids will not enjoy what I have.	WR107, WR108, WR115
<b>Sender Name (Submission ID)</b> Gregory P Elstad (42724)		
14358	opinion it is time to move ahead on this project by selecting a Preferred Alternative, publishing a FEIS, and issuing the permits required for mining. In my opinion the “Proposed Connected Actions” is the best alternative and should be the alternative selected for implementation. It is a better alternative, in my opinion, than “Proposed Connected Actions, Alternative B” because “Proposed Connected Actions” causes more federal acres to be exchanged and thus, more “blocking up” of federal lands.	LAN11
14359	But it is a fact: copper is a strategic mineral, and we do NOT produce within the boundaries of the USA all of the copper for our national defense: any student of mankind’s history will assure you that as long as there is a USA, we will be embroiled in wars – some big wars, some small wars, some popular wars, some unpopular wars. That being our situation, the day will surely come that we will be grateful that we have a Polymet mine to help win a war	NEPA05
14815	when Northmet is up and running it will produce 72,000,000 pounds (36,000 tons) of essentially pure copper annually, and 15,000,000 pounds (7,500 tons) of essentially pure nickel annually. Thus, the Northmet mine will produce 36,000 tons / 2,000,000 tons = 1.8% of our annual need for copper in the United States, and 7,500 tons / 200,000 tons = 3.8% of our annual need for nickel in the United States. Ms. Knutson also mentioned that Northmet will annually produce 105,000 troy ounces (6,625 pounds) of gold and other precious metals.	SO10
14815	when Northmet is up and running it will produce 72,000,000 pounds (36,000 tons) of essentially pure copper annually, and 15,000,000 pounds (7,500 tons) of essentially pure nickel annually. Thus, the Northmet mine will produce 36,000 tons / 2,000,000 tons = 1.8% of our annual need for copper in the United States, and 7,500 tons / 200,000 tons = 3.8% of our annual need for nickel in the United States. Ms. Knutson also mentioned that Northmet will annually produce 105,000 troy ounces (6,625 pounds) of gold and other precious metals.	SO10
14816	On the other hand, if the Northmet mine proposal is not approved, I would expect that that would be the end of any possibility of mining copper and nickel in Minnesota in the foreseeable future. What investor would want to invest millions of dollars over a 10 year period only to hear NO at the end?	SO10
14816	On the other hand, if the Northmet mine proposal is not approved, I would expect that that would be the end of any possibility of mining copper and nickel in Minnesota in the foreseeable future. What investor would want to invest millions of dollars over a 10 year period only to hear NO at the end?	SO10
14817	1.Copper and Nickel are minerals necessary for our national defense.2.Approving the Northmet mine will lead to other copper / nickel mines in Minnesota. The output of all of the possible copper / nickel mines in Minnesota (including Northmet) will be a significant amount, an amount both critical to our national defense, and also critical to the local economy.	SO10
14817	1.Copper and Nickel are minerals necessary for our national defense.2.Approving the Northmet mine will lead to other copper / nickel mines in Minnesota. The output of all of the possible copper / nickel mines in Minnesota (including Northmet) will be a significant amount, an amount both critical to our national defense, and also critical to the local economy.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gregory P Elstad (42724)		
14818	3.If it would be unfair to Polymet to deny them the opportunity to mine and thus “prove their case” because the denial would be judging / convicting Polymet on the basis of what some other companies have done. However, we should use the bad experiences by other companies to improve the Northmet permits so mistakes are not repeated.	PER31
14818	3.If it would be unfair to Polymet to deny them the opportunity to mine and thus “prove their case” because the denial would be judging / convicting Polymet on the basis of what some other companies have done. However, we should use the bad experiences by other companies to improve the Northmet permits so mistakes are not repeated.	PER31
18332	the copper miners in Congo -- one of our biggest foreign sources of copper -- are treated as virtual slaves. I wonder how many of the environmentalists opposing Northmet know that they are therefore, in effect, supporting slavery in other countries?	NEPA05
18332	the copper miners in Congo -- one of our biggest foreign sources of copper -- are treated as virtual slaves. I wonder how many of the environmentalists opposing Northmet know that they are therefore, in effect, supporting slavery in other countries?	NEPA05
18335	We cannot ignore the bad experiences of the past, of course. But rather than punishing Polymet for bad experiences the did not do and thus could not control or avoid, we should use these bad experiences to improve the permits for the Northmet mine to make sure we do not repeat experiences of the past.	PER31
18335	We cannot ignore the bad experiences of the past, of course. But rather than punishing Polymet for bad experiences the did not do and thus could not control or avoid, we should use these bad experiences to improve the permits for the Northmet mine to make sure we do not repeat experiences of the past.	PER31
18337	the environmentalists demand that Polymet mine without causing ANY negative impacts -- do a perfect job, in other words. That is not only unfair, it is a goal that is impossible to meet.	NEPA05
18337	the environmentalists demand that Polymet mine without causing ANY negative impacts -- do a perfect job, in other words. That is not only unfair, it is a goal that is impossible to meet.	NEPA05
<b>Sender Name (Submission ID)</b> Greta Bergstrom (46344)		
8913	I am writing to request that you revise the draft EIS to address Minnesota Rules 6132.3200, clarifying to the public how the post-closure activities described in the mine plan are consistent with the mandate that the mine site be “maintenance free” upon its closing. It is my understanding that existing data in the water management plan supporting the SDEIS show that sulfates and metals will dramatically exceed water quality standards for hundreds of years after closure.	PER04
8914	As we know, releasing sulfuric acid into our water supply will taint it. The reverse osmosis water treatment that will be required for hundreds of years appears (to me) to be in conflict with Minnesota Rules requiring that mines be "maintenance free" at closure, bringing the project truly to a close without harm to our environment or excessive costs to state taxpayers. Please show how exactly PolyMet’s North Met mining project would meet applicable water quality standards upon completion/closure given these Rules.	PER04
<b>Sender Name (Submission ID)</b> Gretchen (45407)		
12807	The mining companies quickly disappear when the profits are gone and leave the ravaged environment for the taxpayers to clean up.	FIN01
12808	One has to look at the taconite mines past to realize the horrendous impact a copper mine would have on our state jewel-the boundary waters.	WR023

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gretchen Amis (11514)		
2464	Yes we need economic development to add to the thousands of tourism related jobs we have. PolyMet’s “360” jobs for 20 years is not good enough. The jobs must be jobs for locals. The tourist industry supplys those jobs.	SO02
2464	Yes we need economic development to add to the thousands of tourism related jobs we have. PolyMet’s “360” jobs for 20 years is not good enough. The jobs must be jobs for locals. The tourist industry supplys those jobs.	SO02
2465	I also am worried about the continued reclamation costs. We can’t see into the future. I am afraid that statewide, we tax payers will be paying Polymet’s bills.	FIN10
2465	I also am worried about the continued reclamation costs. We can’t see into the future. I am afraid that statewide, we tax payers will be paying Polymet’s bills.	FIN10
2466	Any accident or leakage could destroy the environment – kill wildlife & drainage wild rice. The mine is a threat to the heritage of Minnesota.	VEG04, WI04, WR071, WR156
2466	Any accident or leakage could destroy the environment – kill wildlife & drainage wild rice. The mine is a threat to the heritage of Minnesota.	VEG03, VEG01
19493	One important inclusion should be all of the mine’s financial backers, not just Polymet. Glencore and any other company should be held accountable in all financial assurance for cleanup and accidents.	FIN02
<b>Sender Name (Submission ID)</b> Griffin Henjum (44607)		
12065	I believe this mine will have negative effects for generations to come. The hundreds of years of clean up and adverse effects on the environment is not worth the short term economic benefits.	SO01
<b>Sender Name (Submission ID)</b> Gus & Glenda Fisker (47276)		
9288	I am concerned with the long term safety of the water... There needs to be very long term, perhaps indefinite, water protection.	FIN01
9290	The BWCA should be protected at all costs. Once damaged or altered, it can never be replaced.	WILD02
<b>Sender Name (Submission ID)</b> Gwen Myers (58129)		
20001	The SDEIS is inadequate and inaccurate and confusing. How can it be that all their science cannot predict how long water treatment would be required?	NEPA14
<b>Sender Name (Submission ID)</b> Gwen S Myers (11596)		
2258	PolyMet’s humidity cell testing indicate that its waste rock leaches mercury at more than four times the water quality standard, yet PolyMet purposes not to conduct an analysis of the amount of mercury that will enter the Partridge River from leakage from waste rock stockpiles and mine pits.	MERC20
2258	PolyMet’s humidity cell testing indicate that its waste rock leaches mercury at more than four times the water quality standard, yet PolyMet purposes not to conduct an analysis of the amount of mercury that will enter the Partridge River from leakage from waste rock stockpiles and mine pits.	MERC20

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Gwen Updegraff (42871)		
8970	The proposed EIS does not provide adequate safeguards or resources for treatment of polluted water. There is no way the company can provide for 500 years of water treatment, and even if they did what they promised there would still be large quantities of polluted water released untreated.	WR037, WR070
8970	The proposed EIS does not provide adequate safeguards or resources for treatment of polluted water. There is no way the company can provide for 500 years of water treatment, and even if they did what they promised there would still be large quantities of polluted water released untreated.	WR086, WR105
8971	PolyMet will destroy over 1,000 acres of wetlands that are a crucial part of maintaining clean water and a healthy ecosystem in northern Minnesota. The EIS does not provide for replacement of these wetlands.	WET04
8971	PolyMet will destroy over 1,000 acres of wetlands that are a crucial part of maintaining clean water and a healthy ecosystem in northern Minnesota. The EIS does not provide for replacement of these wetlands.	WET01, WET04
8972	PolyMet will emit mercury pollution in the course of [ILLEGIBLE] operations as well as through huge consumptions of power from coal burning plants. The EIS does not address how to minimize or mitigate the total mercury Polymet will be puffing in our water.	AIR02, MERC16
8972	PolyMet will emit mercury pollution in the course of its operations as well as through huge consumptions of power from coal burning plants. The EIS does not address how to minimize or mitigate the total mercury Polymet will be puffing in our water.	AIR02, MERC16
8974	Northeastern Minnesota, and in particular the BWCA area, is so far a uniquely wild and unpolluted area...The BWCA draws visitors from all over the world. Allowing Polymet to proceed with its proposed mine would leave a place that looks like Flint, Michigan, where nobody wants to live and nobody wants to visit.	WILD02
8974	Northeastern Minnesota, and in particular the BWCA area, is so far a uniquely wild and unpolluted area...The BWCA draws visitors from all over the world. Allowing Polymet to proceed with its proposed mine would leave a place that looks like Flint, Michigan, where nobody wants to live and nobody wants to visit.	SO02, WILD02
8976	I am also concerned about the inevitable impact on human health [resulting from PolyMet mine].	HU03
8976	I am also concerned about the inevitable impact on human health [resulting from PolyMet mine].	HU03
8980	The PolyMet mine would provide employment for a few in the region for a few years, then leave it polluted and devastated.	SO01
8980	The PolyMet mine would provide employment for a few in the region for a few years, then leave it polluted and devastated.	SO01, SO02
<b>Sender Name (Submission ID)</b> Gwendolyn Danfelt-Martin (21520)		
1255	I find the SDEIS inadequate, and the project should not proceed. (...) the PolyMet project as it stands would have many more negative impacts than positive	SO01
1261	My main concern is the impact on climate change that mining's greenhouse gases have.(....)PolyMet would be responsible for 0.44% of Minnesota's greenhouse gas emissions, while only employing approximately .012% of its workers.1[footnote:1 Statistic from Jane Reyer of Northeastern Minnesotans for Wilderness]	AIR01
14213	Mining sends pollutants into the ground water that linger for centuries, and PolyMet has unrealistic plans for containing, cleansing, and monitoring those pollutants for the next 500 year.	FIN11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> H B Bloomer (42848)		
8567	I have briefly reviewed the highlights of the recent SDEIS, and I am convinced that the management of the company is totally committed to putting their proposed mine into production in an ecologically-responsible manner.	PD28
8567	I have briefly reviewed the highlights of the recent SDEIS, and I am convinced that the management of the company is totally committed to putting their proposed mine into production in an ecologically-responsible manner.	PD28
<b>Sender Name (Submission ID)</b> Haddie Hadachek (40155)		
6156	Will we jepordize our water quality for short term money?	SO01
<b>Sender Name (Submission ID)</b> Hallie Finucane (47088)		
11404	What real financial protection does the State of Minnesota have for all of the clean up that will be required? Also, since PolyMet is a Canadian company, how easily can any obligations be enforced?	FIN01
16553	Too often, the mining companies go bankrupt and/or just walk away from the mine and the state has no recourse for restitution. The financial responsibility for the clean up is borne by the state and taxpayers, and in the case of Arizona, the state has not had the financial resources to restore the area that was mined. What financial guarantees does Minnesota have so this does not happen to the state of Minnesota and our taxpayers?	FIN01
16558	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR111, WR115
16561	It is clear that the main concern of PolyMet is the profits that can be obtained, and the Range wants jobs, even though the jobs are relatively short term. Lake Superior and the Boundary Waters area should not be irreversibly compromised and sustain long term damage to satisfy corporate profits. The high risk of irreversible and long term (500 year) damage to our beautiful wilderness areas cannot be sacrificed or justified for short term jobs and corporate profits.	SO01
16562	What real financial protection does the State of Minnesota have for all of the clean up that will be required? Also, since PolyMet is a Canadian company, how easily can any obligations be enforced?	FIN01
<b>Sender Name (Submission ID)</b> Hanna Hindt (44369)		
10392	Having the mining site located outside of the boundary waters creates a strong case for the degradation inside the reserve.Run-off of chemicals is expected to occur.	WILD02
10394	People travel from far across Minnesota and other states to visit and breath the fresh, not as polluted air. Being disrupted by this mining site will change the opinions of many negatively.	AIR11
<b>Sender Name (Submission ID)</b> Hannah (44577)		
11806	I also don't believe the company when they say that they will clean up the mess and pay for ecological damage. Most of the companies that "claim" they will clean up usually file bankruptcy and leaves the next generation to clean up their mess.	FIN01
<b>Sender Name (Submission ID)</b> Hannah Jents (54342)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Hannah Jents (54342)		
17451	I think that PolyMet Mining has a good plan in place. I think that this copper-sulfate mining process will benefit Minnesota. Some of the advantages that there will be are more jobs open for people for mining and mechanics. It could bring more businesses over, opportunities and industries too.	SO10
17592	Water and air pollution could be a problem if they are not treated right. Also some of the chemicals could harm the environment around the area too.	GEN01
17593	It could affect cultural resources by stunting the growth of the wild rice if not treat properly, same with the runoff water and rivers.	CR01
<b>Sender Name (Submission ID)</b> Hannah Maertz (43835)		
11852	Even the company acknowledges the large amount of water pollution that will occur for hundreds of years after the mining takes place.	PD01, WR115
14950	As a Minnesotan, I am proud of our states abundant water supply and our ability to ensure it's quailty. I believe this mine would greatly jeporadize that.	GEN01
17406	The proposed mine plan does not keep Minnesota's water safe and clean. Every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater and the environment without being treated.	WR070
<b>Sender Name (Submission ID)</b> Hannah Miller (45113)		
7644	There is no way that a few decades of questionable profit are worth a future of waste and pollution.	SO01
16740	Who has ever lived five hundred years?...What company has ever lived so long, to clean up the wreckage it has wrought?	FIN01
<b>Sender Name (Submission ID)</b> Hans Olsen (57543)		
19539	The SDEIS section on Cumulative Effects must include some high level analysis of the impact of multiple copper / nickel mines processing their ores in this immediate vicinity, and of PolyMet processing larger volumes for longer periods. There needs to be some conceptual analysis of the impact on these headwaters of multiple copper / nickel mines operating there for a hundred years.	CU13
19540	a specific analysis needs to be done of Twin Metals processing their ores using excess processing capacity at this same site. That possibility is too real and too imminent to be excluded from your analysis. At a bare minimum this EIS needs to identify one backup site for an additional tailings basin and needs to update the impact on the local hydrology assuming a doubling of the projected volume of ores processed in this same time frame. That analysis needs to consider refilling the West Pit at twice the forecast rate.	CU02
19541	The assessment of cumulative effects should not be limited to known specific planned mining in this area. The analysis needs to be expanded to consider the effect of a deliberate decision by the State of Minnesota to permit copper / nickel mining anywhere in the Duluth Complex, but restrict processing of such ores to the St Louis River drainage only.	CU13
19542	the SDEIS is the right place to begin assessing how the hydrology in the headwaters of the St. Louis River drainage would be impacted by concentrating all copper / nickel ore processing here and keeping it completely out of the Kawishiwi River drainage.	CU13
19543	The SDEIS should make a global assessment of the relative risk of mining this ore vs. processing the ore.	SO04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Hans Olsen (57543)		
19544	The Forest Service needs to consider precisely how the land exchange would be impacted by multiple mining companies processing ores in this same area. In particular they need to assess potential areas for additional tailings basins and storage stockpiles on what is currently Federal Land in these same headwaters.	CU10
19545	The hydrology projections need to be modeled considering the possibility of extreme rain fall events in the immediate vicinity of the plant. The model needs to be run assuming 1 inch of rain per hour for 24 hours immediately over the tailings basin.	WR077
19547	The SDEIS needs to include an analysis of a catastrophic failure of the containment systems for the NorthMet tailings basin.	WR202
19548	The SDEIS and the Army Corps of Engineers need to identify secondary and even tertiary containment areas that would be publicly funded in anticipation of failures of the corporate financed primary containment systems. This needs to include an analysis of various dams and dikes in the immediate vicinity of the plant and further downstream in the St Louis River system designed to contain spills that escape the plant area and that also manage extreme storm runoff efficiently.	WR130
19549	An alternative needs to be identified for using water from Colby Lake for ore processing in the event that use of such lake water is denied or withdrawn later. In particular, the efficacy of various proposed provisions to capture and retain spring snow melt for ore processing need to be assessed in the event no water from Colby Lake can be used.	ALT12
19551	The SDEIS needs to identify an alternative water supply for Hoyt Lakes in the event the current source is adversely impacted.	WR140
19552	The SDEIS needs to consider using solar panel arrays designed and equipped to channel and collect rainwater, as a supplementary cover to cap the tailings basin slopes and beaches, over class 2, 3, and 4 temporary stock piles, and over the Hydrometallurgical Residue Facility during active processing. Floating arrays could even be considered over the tailings pond.	ALT13
19553	The SDEIS should address potential threats to wild rice waters the same way wetlands are treated, i.e., as candidates for compensatory mitigation. The SDEIS would be substantively improved by simply assuming a fixed acreage of wild rice needs to be replaced just as wet lands are replaced.	WR155
19554	Two new roads need to be built at public expense to carry employee traffic to and from this massive work area that eventually will house multiple mining operations here... Both these road beds could become part of the dike system designed for the proposed Embarrass River containment area.	PD36
19555	Each relevant map in the SDEIS needs to have an overlay showing the location of the Laurentian Divide.	PD38
19556	It seems self evident that Colby Lake cannot be the sole source of processing water for multiple mines operating in this same area, and The Whiteface Reservoir cannot be the sole source of municipal water for a community in the direct line of impact from any catastrophic failures at these plant sites, though the proposals contained here for the Partridge River may well address the latter concern.	WR140
<b>Sender Name (Submission ID)</b> Harlan (43962)		
7042	The likelihood of a breakdown in PolyMet's proposed operations is great, and the consequences to the environment would be disastrous, especially in this fragile and water-rich part of the Lake Superior watershed.	PD22
7043	The short-term economic benefits of the mine would not be worth the price of the potential long-term harm.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Harlan (43962)		
14938	The SDEIS tells us that water pollution and other environmental harms can be prevented or contained for 20 years of mining operations and hundreds of years thereafter . . . If [nothing unexpected happens during that time]... But unforeseen things do happen; in the real world, unexpected events should be expected; and hundreds of years is a very long time	PD22
<b>Sender Name (Submission ID)</b> Harold Dziuk (44383)		
10442	All I want is to make sure that any sulfide mines opened in NorthernMinnesota are safe, clean, and don't leave taxpayers with a bill.	FIN10
<b>Sender Name (Submission ID)</b> Harold J Noyes (43218)		
15827	There is confusion in the public media about the impacts related to the potential for ground water or surface water contamination or a potential need for an extended, undefined term of mechanical treatment. It is my understanding that extensive lab leaching tests and related modelling have been conducted that address and resolve these issues, but I do not believe this has been made adequately clear to the public, since this remains a commonly cited objection and most people cannot reasonably understand a 2300 page technical document. I recommend in your approval of the project that you provide some better summary of this collection of issues.	PD03, WR035, WR190
<b>Sender Name (Submission ID)</b> Harold Nordin (43066)		
9994	The current SDEIS does not address the use of alternative methods for mining sulfide bearing ores that would reduce the impact on the environment—e.g. underground or subsurface mining operations which could significantly reduce adverse impact on the ecologically sensitive surface area and reduce the likelihood of water contaminants in the watershed.	ALT06
9995	The current SDEIS does not address the consequences of long terms exposure to water borne and airborne contaminants for individuals living and working within area which will be impacted by open-pit mining operations...	HU04
9997	The current SDEI does not adequately address the ability of ...(PolyMet) to provide the necessary financial assurances that site remediation issue can be addressed long-term	FIN01
15422	The current SDEIS does not adequately address the issue of water quality relative to the reproduction of wild rice in waters adjacent to mining operations. Current guidelines for water quality should be enforced as currently written and allowances for seasonal variations should not be allowed.	VEG04, WR153
<b>Sender Name (Submission ID)</b> Harriet Liedtke (14622)		
1684	It makes economic sense to not burden our children with 500 years of pollution.	FIN10
<b>Sender Name (Submission ID)</b> Harriet M Liedtke (20992)		
16221	Minnesota is known for its natural resources. Let's not risk our future. It's not worth it.	SO01
<b>Sender Name (Submission ID)</b> Harry Melander (18140)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Harry Melander (18140)		
13561	We believe that the applicant has provided to our state and our national agencies all that has been asked for and more. We believe that the agencies, the DNR, are state agencies and others that we all support and trust addressed all that Minnesota wants, which is a safe and clean mining process for minerals that everyone in this room depends upon.	NEPA16
<b>Sender Name (Submission ID)</b> Harvey Hyatt (54551)		
18959	...the model is based on a drought year. This severely underestimates the amount of sulfides that will enter the environment.	WR165
<b>Sender Name (Submission ID)</b> Heather Day (15754)		
12043	Would like to [see the] SDEIS address concerns outlined by the hydrologist who spoke about the inaccuracy of the maps and turn off from the 100 mile swamp (proposed wetland exchange acreage).	WET19
12045	The SDEIS is incomplete and does not fully address the impact of the mine on water quality for Hoyt Lakes and it's greater watershed.	WR043, WR111
17044	[I] Would also like to see SDEIS address spills, tailings contaminating water, and other unforeseen issues/emergencies.	PD11, PD22
<b>Sender Name (Submission ID)</b> Heather Friedli (7163)		
522	I feel that 500 years of potential pollution to our lakes and rivers is too much of a risk to take.	PD04, WR195
523	For the outdoor tourism industry we do have, and for the health and lives of the people who live and work in the surrounding area. We need sustainable industry up there	SO02
526	I don't want to live near a Superfund site which we just let happen in some of the most scenic and pure places in the world. Who will be paying for the perpetual clean up of these mines and tailing basins? While the mining companies say they will, 500 years of pollution is longer than we can expect those companies to stay in business, or stockpile enough money to take care of their mess. Polymet has yet to detail how they will financially pay for perpetual cleanup.	FIN01
528	We should not pollute the water we all drink and play in. What about the heritage we leave to our children? I want them to have the same opportunities to fish clean waters and collect wild rice that we have.	WR156, WR195
<b>Sender Name (Submission ID)</b> Heather Lehtinen (39116)		
5173	*Arsenic is rated by the U.S. Environmental Protection Agency as a Class A carcinogen. That means it causes cancer in human beings. Colby Lake provides drinking water for the city of Hoyt Lakes. It already has high arsenic levels.	HU05
13296	*Arsenic is rated by the U.S. Environmental Protection Agency as a Class A carcinogen. That means it causes cancer in human beings. Colby Lake provides drinking water for the city of Hoyt Lakes. It already has high arsenic levels.*The SDEIS says that the PolyMet sulfide mine project will increase arsenic in Colby Lake by 38.5% (SDEIS, p. 5-145)	WR123
13299	In addition to arsenic in their drinking water, people in Hoyt Lakes would ingest arsenic by eating local fish or wild rice. Low income people who fish and rice for food would have the most cumulative risk. The Food and Drug Administration recently tested rice for arsenic and found Minnesota wild rice has 6 micrograms per liter of arsenic.	SO09, WR123, WR156

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Heather Lehtinen (39116)		
17683	*In addition to arsenic in their drinking water, people in Hoyt Lakes would ingest arsenic by eating local fish or wild rice. Low income people who fish and rice for food would have the most cumulative risk.	AQ05
<b>Sender Name (Submission ID)</b> Heather Macdonald (30924)		
13071	Yes- they say they have safety standards and rules and laws in place to prevent pollution. That is no guarantee.	PER06
13998	They dangle before us that jobs will be created by this mining. Why would we want jobs that don't even last as long as the pollution this mining will create.	SO01
<b>Sender Name (Submission ID)</b> Heather Meier (20234)		
1821	It is both naïve & dangerous to think Sulfide Mining will just “fit right in” to Northern Minnesota & create jobs with no negative consequences to the environment and existing economy! I’m in favor of job creation but not at the expense of everything else (e.g. water! & existing jobs). Everything comes with a cost, and the true cost of sulfide mining is far too high.	SO01
1822	This proposal risks our water, air, and the overall environmental health of the region.	AIR11
1824	There will also be 24 hour mining noise & infrastructure stress (impacting residents and visitors).	N01
1825	have we really come to the point in the American Economy that we need to choose between clean water and jobs?	SO01
7665	I am not fundamentally against mining; however, I am strongly against Sulfide Mining and this Proposal. Therefore, I respectfully urge you to reject this proposal and to not grant permits.	PER35
7666	Don’t allow the destruction of the Lake Superior Basin’s environment and existing economy.	SO02
7669	It is both naïve & dangerous to think Sulfide Mining will just “fit right in” to Northern Minnesota & create jobs with no negative consequences to the environment and existing economy!	SO02
7671	The impact difference between Sulfide & Iron Ore mining is drastic, but this is not being discussed enough!	PD27
7672	There is no real life evidence PolyMet’s plan will work. Their proposal is not fact based, but rather theory and speculation. We need real, practical application PROOF this has been done (in a similar climate & scale) without destruction! Not “theories on paper” or “controlled tests or	PD32
7676	Also, important to note, once PolyMet gets the “ok”, smaller mining companies will flood the area. Once this happens, it will be the end of a national treasure.	CU04
7677	PolyMet themselves predict only 25% would be local hires. We all know this means far less than 25% & these will be lower level roles.	SO06
7680	Tourism/Hunting/Fishing... will be negatively impacted by the damage to waterways & change in landscape.	SO02
7687	The [real estate] market in this region is not recovering like the rest of the country because, obviously, no one is buying land that could be ruined by mining.	SO03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Heather Meier (20234)	
7689	The Wild Rice Industry will be destroyed (because of contaminated water).	VEG04
7690	The proposed PolyMet Land Exchange (required) would affect the Tribal rights and interests of the several bands of Chippewa & Ojibwa.	CR01
7696	There is nothing in this proposal that factually supports this will be a safe mine.	PD01
12321	When Sulfide ore comes in to contact with air & water (keep in mind, these mines are almost always below the water line), sulfuric acid is generated. This acidic run off mixes with other heavy metals and thus creates acid mine drainage. This leaches in to ground water, lakes, streams etc. + pollutes the air.	AIR10, WR001
12327	In addition, there is the decimated landscape that results from Open Pit mining (which this will be). Lush northern forests will turn in to barren craters filled with acid drainage. There will also be 24 hour mining noise & infrastructure stress (impacting residents and visitors). All this damage will obviously negatively impact wildlife, human-life and the existing economy. Tourism/Hunting/Fishing are currently the main industries. They will be negatively impacted by the damage to waterways & change in landscape	SO02
12330	The proposed PolyMet Land Exchange (required) would affect the Tribal rights and interests of the several bands of Chippewa & Ojibwa. The Wild Rice Industry will be destroyed (because of contaminated water).	CR01
12331	Our Ely property is at the heart of what could become a Sulfide mine. Their land/home/dream will be destroyed, their investment lost and the pristine lake we love will be contaminated.	LU06
12579	The scientific facts are clear + Sulfide mining's current state & history are consistent & clear: This type of mining is destructive to the environment. There is nothing in this proposal to prove otherwise.	PD26
12586	When Sulfide ore comes in to contact with air & water (keep in mind, these mines are almost always below the water line), sulfuric acid is generated. This acidic run off mixes with other heavy metals and thus creates acid mine drainage. This leaches in to ground water, lakes, streams etc. + pollutes the air.. This is dangerous for people (as well as wildlife).	HU03
12590	As a result of the Flambeau site, Wisconsin has issued a moratorium requiring sulfide mining companies to prove that sulfide mining has successfully been done elsewhere, without causing water pollution, before the allowance of mines there.	PER35
12594	There is no real life evidence PolyMet's plan will work. Their proposal is not fact based, but rather theory and speculation. We need real, practical application PROOF this has been done (in a similar climate & scale) without destruction! Not "theories on paper" or "controlled tests or models". Let's not just believe the Mining Companies (that have a long history of poor stewardship, integrity and accountability).	PD26
12596	In addition, there is the decimated landscape that results from Open Pit mining (which this will be). Lush northern forests will turn in to barren craters filled with acid drainage. ... All this damage will obviously negatively impact wildlife, human-life and the existing economy.	SO02
12600	The Wild Rice Industry will be destroyed (because of contaminated water).	WR156
12603	The proposed PolyMet Land Exchange (required) would affect the Tribal rights and interests of the several bands of Chippewa & Ojibwa.	LAN05

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Heather Meier (20234)	
12606	Our Ely property is at the heart of what could become a Sulfide mine. Their land/home/dream will be destroyed, their investment lost and the pristine lake we love will be contaminated. Make no mistake; this will be the outcome as it has been with all large scale sulfide mines to date. I know my family’s story is not unique; however, the financial, emotional and economic impact to area land owners (like us) is being completely ignored.	LU06
15392	When Sulfide ore comes in to contact with air & water (keep in mind, these mines are almost always below the water line), sulfuric acid is generated. This acidic run off mixes with other heavy metals and thus creates acid mine drainage. This leaches in to ground water, lakes, streams etc. + pollutes the air.. This is dangerous for people (as well as wildlife). The mine craters fill with water (rain + ground water) and mix with the mines acid drainage creating Acid Lakes-This kills the wildlife that unwittingly land in, or drink from, these “acid drainage lakes”.	WR001
15393	In addition, there is the decimated landscape that results from Open Pit mining (which this will be). Lush northern forests will turn in to barren craters filled with acid drainage.	LU04
15394	There will also be 24 hour mining noise & infrastructure stress (impacting residents and visitors).	N01
16090	When Sulfide ore comes in to contact with air & water (keep in mind, these mines are almost always below the water line), sulfuric acid is generated. This acidic run off mixes with other heavy metals and thus creates acid mine drainage. This leaches in to ground water, lakes, streams etc. + pollutes the air.. This is dangerous for people (as well as wildlife). The mine craters fill with water (rain + ground water) and mix with the mines acid drainage creating Acid Lakes-This kills the wildlife that unwittingly land in, or drink from, these “acid drainage lakes”.	WI04, WR001
16092	Also, important to note, once PolyMet gets the “ok”, smaller mining companies will flood the area.	CU04
16093	In addition, there is the decimated landscape that results from Open Pit mining (which this will be). Lush northern forests will turn in to barren craters filled with acid drainage.	LU04
16094	PolyMet themselves predict only 25% would be local hires. We all know this means far less than 25% & these will be lower level roles.	SO06
16095	Tourism/Hunting/Fishing are currently the main industries. They will be negatively impacted by the damage to waterways & change in landscape. Not to mention, landowners, whose property will be destroyed, will no longer spend time or money in the region.	SO02
16096	The Real Estate Market is already basically dead because of this threat. The market in this region is not recovering like the rest of the country because, obviously, no one is buying land that could be ruined by mining. No one will invest in this region as long as Sulfide Mining is being proposed.	SO03
16097	The Wild Rice Industry will be destroyed (because of contaminated water).	WR156
16098	The proposed PolyMet Land Exchange (required) would affect the Tribal rights and interests of the several bands of Chippewa & Ojibwa.	LAN05
16099	Yes, unemployment in the region needs to be addressed. However, not at the expense of our water, air and already existing jobs!	AIR11
16495	I’m in favor of job creation but not at the expense of everything else (e.g. water! & existing jobs). ... Have we really come to the point in the American Economy that we need to choose between clean water and jobs? This proposal risks our water, air, and the overall environmental health of the region.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Heather Meier (20234)		
16496	The impact difference between Sulfide & Iron Ore mining is drastic, but this is not being discussed enough! ... However, I'm concerned most Minnesotans believe this is just the same as the Iron Ore mining done in Northern MN for generations!	PD27
16497	Also, important to note, once PolyMet gets the "ok", smaller mining companies will flood the area. Once this happens, it will be the end of a national treasure. If we open "Pandora's Box" with this "experiment", there will be consequences that no amount of time OR \$ will be able to fix. This is not something we'll be able to come back from....	CU04
16498	There will also be 24 hour mining noise & infrastructure stress (impacting residents and visitors).	N01
16499	Tourism/Hunting/Fishing are currently the main industries. They will be negatively impacted by the damage to waterways & change in landscape. Not to mention, landowners, whose property will be destroyed, will no longer spend time or money in the region.	SO02
16500	The Real Estate Market is already basically dead because of this threat. The market in this region is not recovering like the rest of the country because, obviously, no one is buying land that could be ruined by mining. No one will invest in this region as long as Sulfide Mining is being proposed.	SO03
16501	Ely and the surrounding area will no longer be a destination to buy cabins/lake homes. The dream of owning a lake home in Ely will become the dream to own a lake home elsewhere.	LU06
16502	Please demand real-life PROOF, not just a few "tests & models". Don't allow the BWCA to be another failed sulfide mining "experiment". The area is far too valuable to risk!	PD32
<b>Sender Name (Submission ID)</b> Heather Simso (54135)		
16031	why [do] they think this will be the one mine without environmental consequences	PD26
<b>Sender Name (Submission ID)</b> Heidi Jindrich (29233)		
13871	I have seen the type of society that accompanies resource extraction economies: severe local poverty, extreme corruption in government, brutal ignorance and its militant defense. The time had come for a different vision, just to survive. ... Others see it and are willing to defend the land if you are not. We need water to live.	SO02
<b>Sender Name (Submission ID)</b> Heidi Takala (48639)		
13328	People in these areas rely on the natural wildlife and natural resources in this area, I am sure that do not want to see their lives and their childrens' lives threatened by the destruction that would impact the area.	SO02
<b>Sender Name (Submission ID)</b> Heidi VanGuilder (44554)		
11801	I also believe from an economic standpoint, that expediting the current processes so Polymet could begin construction immediately would bring a desperately needed, immediate economic boost to the Iron Range.....	SO10
<b>Sender Name (Submission ID)</b> Heinecke (9576)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)**    Heinecke (9576)

- 214 I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations, and cumulative impacts from mining.    WET24, WI01
- 1126 The Federal land exchange of protected Superior National Forests to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.    LAN01
- 1127 The proposed mine poses unacceptable risks to our waters and communities    HU03, WR195
- 1128 I ask that the comment period be extended to 180 days, and I support the No Action Alternative.    NEPA07

**Sender Name (Submission ID)**    Helen Elizabeth Proechel (42803)

- 7014 4. Also I would like to ask, "Is sulfide mining for copper and nickel a good business decision?" a. Are there cheaper, less environmentally damaging ways to extract copper and nickel? b. Is the demand for new copper and nickel strong enough to merit risking Lake Superior, the Mississippi River watershed, and the aquifers underneath, not to mention surface soils?    ALT16
- 7017 2. The tensions between the needs of business/labor vs protecting pristine nature are very real; 3. I would like to take the pollution that once a fragile ecosystem and watershed are damaged it is difficult, if not impossible, to put "Humpty-Dumpty together again";    SO01

**Sender Name (Submission ID)**    helen forsythe (3115)

- 570 ... people living around this region would be detrimentally affected by any sulfuric acid released into watersheds as a byproduct of the proposed Polymet mine. To endanger the health of this sacred ecosystem for the benefit of corporate interests is to devalue the health of the people and other creatures that inhabit this region.    HU01
- 571 I recognize that this mine will create over 300 jobs for 20 years, which is a social benefit of the mines that I do not want to discredit.    SO10
- 18651 I believe the perceived economic benefits of these mines will be short-lived and will benefit only a few people so the dangers posed by these mines are entirely more significant than the benefits.    SO02
- 19935 I understand the significant economic opportunities offered by these new sulfide mining operations, but I believe the consequences to be for too dangerous for the economic argument to be valid. The potential water, soil, and air pollution effects from these mines pose major threats to the health of people in Minnesota. Our citizen's health will be compromised by this mine, and even those who receive the economic benefits will either be living away from the wastes created, or they will be experiencing the toxic qualities of mining for the period of time that they are employed in the mines. The use of the products received from those mines are not worth compromising our health in the form of our water, soil, air, co2 levels, etc.    HU03, SO01

**Sender Name (Submission ID)**    helen frigo (17665)

- 2112 The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for--information that is necessary to evaluate the environmental effects of this proposal.    FIN01, WR035, WR128
- 2113 More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering. The SDEIS proposes no mitigation for the indirect wetland impacts.    WET01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> helen frigo (17665)		
1214	...sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
2115	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> HELEN J SPRY (6128)		
1043	Why would or should the state risk this next to one of the most pristine and valuable water sheds in the state: BWCA and Lake Superior.	WR111
1044	Can it really ever be repaired if a problem occurs. If mining is allowed, and if correction is needed it should be funded as a HUGE ( multiple BILLIONS) bond or escrow. When your document shows mitigation needs to allow 500 years on the Mining companies, make sure it's the mining pocket books NOT the MN or US taxpayers on the hook.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Helen Mercer-Taylor (57193)		
17079	...pristine natural areas like the waters threatened by this project.	WR111
<b>Sender Name (Submission ID)</b> Helen Sievers (43350)		
16126	the seepages of toxic chemicals such as mercury and all of the sulfides into the watershed will cause big problems for generations to come.	WR195
16127	once in the environment these metals could be converted to organometallic compounds which are extremely toxic at even lower concentrations than the inorganic form, the sulfides for example. Methylation of such compounds, which can occur in natural environments, increases their capacity to cross the blood/brain barrier causing all types of neurological problems as well as genetic anomalies.	HU03
16128	Are they willing to pay a "carbon tax" on all of the carbon dioxide it releases? Are they willing to put a cap on their profits and invest the rest into the community from which they are taking the minerals? Are they willing to invest a significant portion of the monetary gains towards researching methods of preventing and/or reversing the effects of the pollution caused by their mining techniques? ... Would PolyMet be willing to install solar power or wind power along the roads to the mining site?	PD01
16129	ould they be willing to dedicate a certain percentage of their employee's time to community volunteering? Or are they just going to give short term employment to a few people and then leave.	SO01
16130	What happens if [PolyMet is sold and] the [mitigation] responsibility is transferred to another company that is even more removed from our state? Will even more of the monetary benefits leave Minnesota? Would that company be even less concerned about the damage they can do to the environment? Would they be required to live up to the promises made by PolyMet, weak as they are?	FIN01
16131	there seemed to be no long term employment in the planning. Is this company going to guarantee there will be jobs for even twenty years? Even if there is employment for that length of time, what happens when the minerals are all extracted from the ground? Why not invest in real careers that will last longer.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Helen Sievers (43350)		
16132	One fact that was brought up several times was we all use electronics and other products that require the very minerals found in the deposits in questions. Certainly there is truth to this but I have to wonder if we truly have done enough to streamline the needs. For example, a considerable amount of materials are sent to China for recycling. Instead of using fuel to ship them to China why not establish recycling facilities in those buildings from previous mining efforts that are no longer being used thus keeping the recycled metals here in this country and again provide some jobs to those who need them.	NEPA06
<b>Sender Name (Submission ID)</b> Helmut Maier (10239)		
384	Unless PolyMet is forced to fully finance the long-term clean-up of the proposed leaching sites while they operate the mine, the long-term protection of the ground water and environmental waster sources will eventually fall to the public sector, either through bankruptcy or off-shoring of the operating company.	FIN01
1768	After reading that Glencore is a 25% owner of the intended mine and a likely operator, I was concerned about ethical issues reported about Glencore in the news and on the internet	PD23
1769	To assure that any [heavy metal or sulfur] contamination is caught in real time ..., effluent and off-gases should be controlled in real time with data sent immediately on-line and automatically to a government authority as soon as the allowed discharge limits are exceeded.	AIR13, WR039
1771	the PolyMet mine has to fund verifiably ongoing insurance that will pay for any longterm clean-up of water from the mine operation. It has to be assured that the owner or operator of the mine cannot declare bankruptcy or go off-shore ... The tax payer should not have to pay for any of the long-term consequences of this mine operation.	FIN01
2096	... cleaning up a heavy metal spill is very difficult, time consuming and costly and does major damage to the environment.	WR037
19902	Concern about control of discharge from mine. It is not sufficient to control discharge level of pollutants on an infrequent basis. Instead, there has to be real fine control for metals and pollutant gases to assure no inadvertent pollution happens due to mechanical failures or human error.	WR063
<b>Sender Name (Submission ID)</b> Henry Illegible (11566)		
2210	I feel the numbers Polymet has given are suspect. There is no 3rd party research in the area. It is quite possible all the analysis is based on faulty numbers from Polymet	NEPA15
2210	I feel the numbers Polymet has given are suspect. There is no 3rd party research in the area. It is quite possible all the analysis is based on faulty numbers from Polymet	NEPA15
<b>Sender Name (Submission ID)</b> Henry J. Sandri (42919)		
9544	The NorthMet Project has already provided a positive economic impact to the region and has given many communities hope as a source of good jobs for a considerable time.	SO10
9545	We believe that the NorthMet Project is respectful of the great tradition of mining in northern Minnesota while at the same time continuing to improve on the various mining processes and results.	PD28
9547	PolyMet has gone to incredible lengths to satisfy the regulations and the law.	PER34

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Henry J. Sandri (42919)		
9549	It is time for the Minnesota DNR to grant a positive Record of Decision for the Supplemental Draft EIS and allow PolyMet to move into the permitting stage.	NEPA16
9550	The combination of Minnesota’s regulations and PolyMet’s commitment to mining copper, nickel and precious metals in a way that protects the environment will serve as a global template for sustainable, ethical and successful mining practices, in Minnesota, the United States and overseas.	PD28
9553	PolyMet has put a solid project proposal in place and it has been reviewed and modified by scientists and environmental specialists working for both the State of Minnesota and the Federal Government for a number of years.	PER34
9554	The NorthMet Project as proposed by PolyMet is sound and has mitigation measures in place to address the Project’s environmental impact.	PD28
9557	PolyMet has addressed all potential issues associated with the SDEIS, including all of those brought forward by State and Federal officials, employees and their consultants throughout the process.	NEPA16
9559	PolyMet has been working with regulators for nearly 10 years to ensure compliance.	PER34
9560	Any issues or concerns that were discovered during the EIS have been addressed in the SDEIS.	NEPA16
9561	The SDEIS is a clear reflection of PolyMet’s and the agencies’ work to develop a successful copper-nickel-precious metals mine and mill operation to the Iron Range.	NEPA16
9563	The NorthMet Project will bring high-paying jobs to an area of the State that needs the long term work and continued economic development.	SO10
9564	The NorthMet Project will be a significant contributor to the economic impact of northern Minnesota and will be an important benefit the State.	FIN16
<b>Sender Name (Submission ID)</b> Henry Koski (11582)		
2241	I have concern about the release of radioactive minerals as U and others. If present I have concern about the amount to be released. I have concern about the release and amount of heavy metals from the operation. I would like to see a projection on this.	HAZ03
2241	I have concern about the release of radioactive minerals as U and others. If present I have concern about the amount to be released. I have concern about the release and amount of heavy metals from the operation. I would like to see a projection on this.	HAZ03
<b>Sender Name (Submission ID)</b> Henry Moore (7496)		
24	What happens when the systems designed to stop the seepage, drainage, and discharge fail to operate as described in the SDEIS	WR128
25	will Minnesota’s own Department of Health regulations regarding limits for manganese be upheld	HU03
26	what will be the effect of the toxicity of the plant on the workers	HU04
778	it will destroy nearly 1000 acres of wetlands and probably nearly 8,000 additional acres, all in violation the EPA which requires that a project that destroys wetlands not be approved if pollution would violate the Clean Water Act. This applies to the “Section 404 Permit” as well as the SDEIS.	COE03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Henry Mott (28605)	
10896	I am aghast that those charged with the protection of Minnesota's environment, especially Lake Superior, would accept a "reclamation" plan from PolyMet that would require treatment of mining-contaminated water for hundreds of years post mine closure - perhaps in perpetuity.	PD09, PD35, WR111, WR115
10897	I would hope that the officials in command of this permit application would stand firm that mining should leave no legacy environmental problems with which to deal post closure.	PER06
10898	Those wishing to profit from the mining operations undoubtedly claim that such a guarantee cannot be made - that such a remediation plan cannot be set in place.	PD09, PD35
10899	It may be expensive, but in order to partake in Minnesota's subsurface mineral natural resources, PolyMet (or any other mining company wishing to do so) must be prepared to shoulder the true cost of extracting the minerals from the Earth.	FIN01
10900	Do not say "NO" to mining itself; say "NO" to mining when associated reclamation plans will leave legacy environmental problems.	PD09, PD35
10901	Please don't concentrate on the amount of the bond that PolyMet will set forth - whatever is decided, it will not be sufficient. Rather, concentrate on a requirement that the mining operations will leave no new legacy environmental problems.	FIN01
11720	I find this reclamation plan to provide grossly inadequate assurance of long-term protection of critical ecosystems and surface waters. The proposed necessity to maintain monitoring and treatment systems for seepage from the tailings basin and category 1 waste rock storage pile for 200 to 500 years post mine closure is preposterous.	PD09, PD35, WR035
11721	the proposed necessity, in perpetuity, to maintain the vegetative covers to prevent growth of trees and woody plants on the tailings basin, hydrometallurgical pit and category 1 waste rock pile caps is unthinkable.	PD09, PD16, PD35
11734	PolyMet's predictions suggest a period of up to 500 years during which mechanical treatment of tailings seepage would likely be necessary. PolyMet would not be around to perform this treatment, which if discontinued for any reason, would put sensitive ecosystems and water resources at significant risk. Generations well beyond ours would bear the ultimate brunt of these un-reclaimed tailings as would the ecosystems which undoubtedly would be adversely affected by this activity. This portion of the reclamation plan should be rejected as it provides wholly insufficient protection of water resources and the environment.	FIN01, WR037, WR128
11741	PolyMet should be directed to devise a means to accelerate the sulfide to sulfate reaction of the tailings during active mining and a short, well-defined, period thereafter, thus eliminating the reactivity of the tailings and providing the potential for alternative uses...Bench- and pilot-scale testing should be initiated if the literature does not yield sufficient information for system design... the best time for this to occur is during active mining when human and plant resources to deal with this side stream are present and abundant. Additionally, the tailings already existing in the tailings basin, if reactive, could be treated by the same methodology.	ALT06
11744	The discussions relative to the tailings basin refer to a probable maximum precipitation event. In such a case, the tailings dam could be breached and significant quantities of tailings carried downstream. The DNR should direct PolyMet to examine this potential happenstance in detail and to devise methodologies that would absolutely prevent breach or washout of the tailings containment in the event that a PMP event would occur.	GT05
11749	PolyMet plans simply to dewater and cover the contents of the hydrometallurgy pit, thinking that the double geomembrane liner beneath and a geomembrane cap over the pit contents would be sufficient to isolate the wastes therein in perpetuity.	PD17

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Henry Mott (28605)	
11750	The [hydrometallurgy pit] cap system probably would work for the first fifty years post-closure when efforts to prevent growth of woody plants and trees would remain effective. However, eventually, this program, necessarily carried out by "others" would fail. Trees would take root, tree roots would find their way into the subsurface and eventually the ability of the proposed geomembrane cap to prevent infiltration of water into the hydrometallurgical wastes would be compromised. Water would infiltrate into the hydrometallurgical wastes and produce leachate, which must then be captured necessitating treatment. All this would occur well after the means to provide such treatment would have been de-commissioned.	PD17, PD20
11764	The best means to provide for protection of critical ecosystems and water resources is to deal with the hydrometallurgical wastes during the mining and early post-closure period.	ALT09
11765	PolyMet should be sent back to the drawing board to determine how it will eliminate the need for long-term, above-ground, isolation/storage of the currently-proposed "witches' brew" of hydrometallurgical wastes. Perhaps means to recover valuable metals and to convert perceived wastes into usable by-products can be devised. PolyMet's plan for reclamation of the hydrometallurgical pit falls short of necessary, long-term protection of critical ecosystems and water resources.	PD17, PD19, PD20
11766	PolyMet's plan would leave category 1 waste rock in an unlined pile with a ground water collection system in place to capture leachate for monitoring and treatment. PolyMet is betting that the category 1 waste rock will be non-reactive. Realistically, perfect separation of reactive from non-reactive waste rock is impossible. Certainly, there will be hot spots in the proposed category 1 waste rock pile. This plan sets up the probable scenario that active (cutoff trenches and pumps) collection of seepage would be required in perpetuity.	PD16
11926	PolyMet's predictions suggest that mechanical treatment of seepage would be required for a period of 200 years post-closure.	WR128
11929	[The geomembrane cap system] design would serve merely to delay the inevitable conversion of sulfide to sulfate. Required maintenance (in perpetuity) of the cap system would involve vigilant action to prevent growth of deep-rooted brush and trees on the cap. This maintenance activity ultimately would fail, roots would penetrate the geomembrane liner and the contents of the pile would be subjected to infiltrating rain water and oxygen intrusion. Acidic seepage containing metals would again emanate from the rock pile long after any means to treat such drainage would have been de-commissioned. PolyMet's category 1 waste rock pile reclamation plan fails to provide adequate protection of sensitive ecosystems and water resources.	PD16, PD35
11930	PolyMet plans that category 2-4 waste rock be backfilled into the East and Central Pits and submerged as the pits fill, eventually underlying a wetland. The idea is that the resultant conditions will be anoxic (likely even anaerobic) and that the sulfide to sulfate reaction then will not occur. This portion of the plan does contain some correct thinking. However, PolyMet has not fully considered the potential for migration of ground water through and oxygen (or other electron acceptors) into the backfilled material. No mention of engineering the backfill to provide sure isolation of sulfide minerals from oxygen is made. While not a huge red flag, the plans to fill the East and Central Pits with waste rock could use some additional consideration leading to assurance that sulfide minerals will be properly isolated.	WR029, WR071
11933	The objective of the long-term reclamation process should be the absolute, complete prevention, in perpetuity of the oxidation of sulfides contained in reactive waste rock.	WR001, WR111
11936	The discussions within the SDEIS mention the implementation of corrective action, "...depending upon monitoring results." Certainly, by the time a problem with waste rock that has been backfilled is identified via monitoring, all that can be addressed are the symptoms of the problem. PolyMet should be directed to develop a means to ensure that oxidation of backfilled sulfide-containing waste rock will never occur.	PD15

*Alphabetical by sender's first name*

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<b>Sender Name (Submission ID)</b>	Henry Mott (28605)	
11948	slowly biodegradable electron donor materials, more thermodynamically preferred than sulfide, could be incorporated into the [East/central pits] backfill to scavenge electron acceptors such as oxygen and nitrate entering the backfilled pits. This would ensure that chemoheterotrophic bacteria would prevail over the chemoautotrophic bacteria responsible for conversion of sulfide to sulfate.	MERC06
11953	It is evident that PolyMet has no real plan regarding the reclamation of the West pit other than to let it fill and leave the responsibility, in virtual perpetuity, to others to monitor and treat the water that would emanate thereafter. In the absence of well-conceived plans to isolate reactive surfaces of the West Pit from oxygen, the proposed reclamation plan is absolutely unacceptable. PolyMet's plan that others monitor and treat as long as deemed necessary is absolutely ludicrous.	PD35
11956	Backfilling of the West Pit with category 1 waste rock has been suggested previously and rejected by PolyMet mostly on financial grounds, summarized [in]... section 3.2.3.4.2 of the SDEIS... In short, PolyMet's reluctance to backfill the West Pit is entirely financial... If the economics of mining coupled with effective reclamation are not sufficiently positive for PolyMet to obtain financing for the project, perhaps the project is indeed not economically beneficial.	ALT03
11969	Backfilling of the West Pit is key to the effective full reclamation of the mine and plant sites. The sulfide rock that is currently (in the absence of mining) present in the subsurface poses no adverse environmental consequences.	PD28
11983	PolyMet's proposed plan would leave reactive tailings (both new and legacy from previous activity), hydrometallurgical wastes, and category 1 waste rock (likely with significant reactivity) on the surface, eventually exposed to oxygen and infiltration leading to production of acidic, metal-laden leachate.	PD10, PD15, PD20, WR029
11985	Treatment of seepage (leachate) would be required for centuries after completion of mining activities.	WR035
11986	These deposits of mining spoils would be permanent scars on the environment and would require attention (by entities other than PolyMet) in perpetuity to ensure against significant degradation of local ecosystems and regional water resources.	FIN01
11988	PolyMet's plan would leave the reactive surfaces of the West Pit in contact with water that would flood the pit. Water would overflow and necessarily be mechanically treated perhaps in perpetuity.	WR173
11996	As currently envisioned, once PolyMet's financial gain has been realized, others would be left to deal with legacy wastes left behind by a short-sighted reclamation plan, for which minimization of financial outlay seems to certainly be a major driver. The plan for reclamation, as currently constituted, should be rejected, and hence, a permit to mine should be withheld, until such time as a suitable reclamation plan has been devised and presented.	FIN01, FIN11
12001	When the ore body has been exhausted, all the mine workers have moved on to other pursuits, and all the profits associated with extraction of the metals from the Earth have been realized by the mining companies comprising PolyMet, the mine and plant sites must be directly left in a condition compatible with the unique environment of Northeastern Minnesota.	PD01
12034	I urge the Minnesota DNR to direct PolyMet back to the drawing board to develop an environmentally sound reclamation plan that does not leave our posterity the responsibility to deal with the symptoms of the ugly mess that results from conventional practices applied in sulfide rock mining	PD01
12598	The proposed necessity to maintain monitoring and treatment systems for seepage from the tailings basin and category 1 waste rock storage pile for 200 to 500 years post mine closure is preposterous.	WR035

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Henry Mott (28605)	
12609	The best means to provide for protection of critical ecosystems and water resources is to deal with the hydrometallurgical wastes during the mining and early post-closure period. The hydrometallurgical pit as proposed would be a catch-all for many processing byproducts. Once mixed, the options for recovery of saleable metals and other constituents become quite limited. PolyMet should be sent back to the drawing board to determine how it will eliminate the need for long-term, above-ground, isolation/storage of the currently-proposed "witches' brew" of hydrometallurgical wastes.	PD19
12611	The hydrometallurgical pit as proposed would be a catch-all for many processing byproducts. Once mixed, the options for recovery of saleable metals and other constituents become quite limited. PolyMet should be sent back to the drawing board to determine how it will eliminate the need for long-term, above-ground, isolation/storage of the currently-proposed "witches' brew" of hydrometallurgical wastes. Certainly, there will be hot spots in the proposed category 1 waste rock pile. This plan sets up the probable scenario that active (cutoff trenches and pumps) collection of seepage would be required in perpetuity.	ALT09
12615	PolyMet plans that category 2-4 waste rock be backfilled into the East and Central Pits and submerged as the pits fill, eventually underlying a wetland. However, PolyMet has not fully considered the potential for migration of ground water through and oxygen (or other electron acceptors) into the backfilled material. No mention of engineering the backfill to provide sure isolation of sulfide minerals from oxygen is made.	WR029
12772	East/Central pits: PolyMet should be directed to develop a means to ensure that oxidation of backfilled sulfide-containing waste rock will never occur. For example, slowly biodegradable electron donor materials, more thermodynamically preferred than sulfide, could be incorporated into the backfill to scavenge electron acceptors such as oxygen and nitrate entering the backfilled pits. This would ensure that chemoheterotrophic bacteria would prevail over the chemoautotrophic bacteria responsible for conversion of sulfide to sulfate. Further, means to reduce the permeability (hydraulic conductivity) of the backfilled materials could be included in the design such that ground water migration through and oxygen intrusion into the backfill would occur at rates sufficiently small to be effectively zero. Oxidation of sulfide to sulfate could then be virtually completely prevented.	PD15
12775	West pit: In the absence of well-conceived plans to isolate reactive surfaces of the West Pit from oxygen, the proposed reclamation plan is absolutely unacceptable. PolyMet's plan that others monitor and treat as long as deemed necessary is absolutely ludicrous.	PD35
14296	The proposed [reclamation] plan would simply allow the West Pit to fill without measures to isolate the reactive walls from oxygen. The pit would subsequently overflow requiring treatment (perhaps in perpetuity) of emanating water.	WR038, WR173
16467	The hydrometallurgical pit as proposed would be a catch-all for many processing byproducts. Once mixed, the options for recovery of saleable metals and other constituents become quite limited.	PD18
16490	means to reduce the permeability (hydraulic conductivity) of the [East/central pits] backfilled materials could be included in the design such that ground water migration through and oxygen intrusion into the backfill would occur at rates sufficiently small to be effectively zero. Oxidation of sulfide to sulfate could then be virtually completely prevented.	PD15
16492	Prior to issuance of mining permits, the DNR should require that PolyMet ensure that the sulfides contained in the reactive waste rock, backfilled into the mined pits will never be oxidized.	PER28
16608	Why should Minnesota's taxpayers now and in virtual perpetuity be the scapegoats for PolyMet's profits, to be gained in trade for significant expenditure of future resources and for the probability of significant degradation of key water resources of the State.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Henry Mott (28605)	
16616	Category 1-4 waste rock, PolyMet's tailings (treated to reduce reactivity), legacy tailings present on the site, bentonite, lime, perhaps even stabilized hydrometallurgical wastes, and slowly biodegradable electron donor materials could be combined into a backfill system sufficiently inaccessible to oxygen such that water treatment more than a few years post-closure would be unnecessary. The resultant reclaimed site would have no legacy footprints from the mining activity other than engineered wetlands and perhaps an engineered lake, were excavated materials of insufficient volume to fill all pits. In contrast to mining of sulfide rock in mountainous regions, where high-walls are virtually impossible to isolate from atmospheric oxygen, the proposed mine site would involve 100% below grade excavation. Then, the site offers the opportunity for reclamation to a level nearly commensurate with the pre-mining condition, leaving no legacy wastes on the Earth's surface to spoil the environment for future generations.	ALT06, ALT09, ALT10
17092	the proposed necessity, in perpetuity, to maintain the vegetative covers to prevent growth of trees and woody plants on the tailings basin, hydrometallurgical pit and category 1 waste rock pile caps is unthinkable	PD16
17115	PolyMet's plan calls for a geomembrane cap system to isolate the pile from infiltrating precipitation and atmospheric oxygen... this design would serve merely to delay the inevitable conversion of sulfide to sulfate... maintenance activity ultimately would fail, roots would penetrate the geomembrane liner and the contents of the pile would be subjected to infiltrating rain water and oxygen intrusion. Acidic seepage containing metals would again emanate from the rock pile long after any means to treat such drainage would have been de-commissioned.	WR127
17985	The proposed necessity, in perpetuity, to maintain the vegetative covers to prevent growth of trees and woody plants on the tailings basin, hydrometallurgical pit and category 1 waste rock pile caps is unthinkable. The proposed plan would simply allow the West Pit to fill without measures to isolate the reactive walls from oxygen. The pit would subsequently overflow requiring treatment (perhaps in perpetuity) of emanating water. This portion of the plan is unconscionable.	GEN03
17986	PolyMet proposes to cap the unlined tailings basin with bentonite layers. This action is intended to limit the entry of oxygen into the materials contained therein. The inevitable oxidation of sulfide to sulfate would merely be delayed beyond the time frame of mining operations. Then, post-closure, over time the sulfide to sulfate reaction would occur, creating acid seepage containing leached metals.	GEN01
17987	The acidic seepage water from the un-lined basin would necessarily be collected and treated well after active mining operations cease, until the entire quantity of sulfide contained in the tailings would be converted to sulfate. PolyMet's predictions suggest a period of up to 500 years during which mechanical treatment of tailings seepage would likely be necessary. PolyMet would not be around to perform this treatment, which if discontinued for any reason, would put sensitive ecosystems and water resources at significant risk. Generations well beyond ours would bear the ultimate brunt of these un-reclaimed tailings as would the ecosystems which undoubtedly would be adversely affected by this activity. This portion of the reclamation plan should be rejected as it provides wholly insufficient protection of water resources and the environment.	WR035, WR037, WR115
17991	It would seem prudent to devise a methodology, alternate to PolyMet's proposed "mining business as usual" approach for the tailings basin. PolyMet should be directed to devise a means to accelerate the sulfide to sulfate reaction of the tailings during active mining and a short, well-defined, period thereafter, thus eliminating the reactivity of the tailings and providing the potential for alternative uses. A large body of existing scientific literature addresses the characteristics and behavior of sulfide-oxidizing bacteria. Means to contact tailings with oxygen and other reactants in the presence of sulfide oxidizing bacteria to produce the acid and release metals prior to placement in the tailings pile should be devised. Bench- and pilot-scale testing should be initiated if the literature does not yield sufficient information for system design. Since acids will inevitably be created and metals thereby leached from tailings, the best time for this to occur is during active mining when human and plant resources to deal with this side stream are present and abundant. Additionally, the tailings already existing in the tailings basin, if reactive, could be treated by the same methodology to all but guarantee that tailings would pose no future risk for production of acid.	ALT10, ALT13, ALT17

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Henry Mott (28605)		
18013	The discussions relative to the tailings basin refer to a probable maximum precipitation event. In such a case, the tailings dam could be breached and significant quantities of tailings carried downstream. The DNR should direct PolyMet to examine this potential happenstance in detail and to devise methodologies that would absolutely prevent breach or washout of the tailings containment in the event that a PMP event would occur. Although, as stated in the SDEIS, such an event is highly unlikely, should it occur irreparable damage would be inflicted upon the downstream ecosystems and water resources. Suggesting that a breach or washout is highly unlikely does not offer the sufficient protection that should be afforded the natural ecosystems of the region. As long as the legacy tailings from previous mining activity and those generated by the NorthMet proposal would remain on the Earth's surface danger exists that a catastrophic event could breach the tailings basin dams and permanently degrade downstream ecosystems and water resources.	PD11
18017	PolyMet plans simply to dewater and cover the contents of the hydrometallurgy pit, thinking that the double geomembrane liner beneath and a geomembrane cap over the pit contents would be sufficient to isolate the wastes therein in perpetuity. The cap system probably would work for the first fifty years post-closure when efforts to prevent growth of woody plants and trees would remain effective. However, eventually, this program, necessarily carried out by "others" would fail. Trees would take root, tree roots would find their way into the subsurface and eventually the ability of the proposed geomembrane cap to prevent infiltration of water into the hydrometallurgical wastes would be compromised. Water would infiltrate into the hydrometallurgical wastes and produce leachate, which must then be captured necessitating treatment. All this would occur well after the means to provide such treatment would have been de-commissioned.	WR099, WR127
18031	In short, PolyMet's reluctance to backfill the West Pit is entirely financial. Lip service has been paid to the real evaluation of the alternative. The cost of doing the reclamation job right, in PolyMet's view, is simply too high. Why should Minnesota's taxpayers now and in virtual perpetuity be the scapegoats for PolyMet's profits, to be gained in trade for significant expenditure of future resources and for the probability of significant degradation of key water resources of the State. If the economics of mining coupled with effective reclamation are not sufficiently positive for PolyMet to obtain financing for the project, perhaps the project is indeed not economically beneficial.	SO02
18034	Certainly PolyMet's engineers (either those currently retained or others who could be retained in the future) could custom design the backfill for the East/Central and West Pits to provide quite satisfactory isolation from the atmosphere. Category 1-4 waste rock, PolyMet's tailings (treated to reduce reactivity), legacy tailings present on the site, bentonite, lime, perhaps even stabilized hydrometallurgical wastes, and slowly biodegradable electron donor materials could be combined into a backfill system sufficiently inaccessible to oxygen such that water treatment more than a few years post-closure would be unnecessary. The resultant reclaimed site would have no legacy footprints from the mining activity other than engineered wetlands and perhaps an engineered lake, were excavated materials of insufficient volume to fill all pits.	ALT06, ALT10, ALT13, ALT17
<b>Sender Name (Submission ID)</b> Henry O Moore (42756)		
14452	[The mine project] will destroy nearly 1000 acres of wetlands and probably nearly 8,000 additional acres, all in violation of the EPA which requires that a project that destroys wetlands not be approved if pollution would violate the Clean Water Act. This applies to the "Section 404 Permit" as well as the SDEIS. Poly-Met admits water pollution at the site. How does Poly-Met respond to this concern, and will the EPA rule be enforced?	COE03
14453	Will Minnesota's own Department of Health regulations regarding limits for manganese be upheld? The current limit set by Poly-Met of 1506 micrograms per liter for manganese is fifteen times higher than the health limit set by the Health Department. Why? How will this be corrected since it induces brain damage in humans of all ages?	HU03
14454	What will be the effect of the toxicity of the plant on the workers? Will Poly-Met cover their health liabilities or leave it to Minnesota and the federal government to cover the long term costs? Why is nothing regarding worker health liabilities addressed in the SDEIS statement? Why is this glaring omission allowed?	HU04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Henry O Moore (42756)		
14455	why is a project potentially allowed which will pollute the agricultural, fishing, wildlife, and drinking water for thousands of people in the northeastern Minnesota area and in the Lake Superior basin into perpetuity?	WI04
14456	Why should a most valuable tourist and vacation land for much of the Midwest be sacrificed for a few short lived high-tech jobs, a valuable product to be shipped overseas, and profits be provided to corporations located elsewhere around?	SO01
<b>Sender Name (Submission ID)</b> Henry Reich (10226)		
373	I am worried that the environmental impacts of such a mine are far too great and risky to be worth permitting the mine - in particular, the mine has great potential to seriously pollute the water in the Lake Superior watershed, especially in the long term, which has downstream effects on countless other states, provinces, and ultimately the Atlantic ocean.	SO01, WR111, WR115
374	I URGE YOU to protect our water and DO NOT ALLOW THE DEVELOPMENT OF A SULFIDE MINING INDUSTRY in Minnesota.	WR115
<b>Sender Name (Submission ID)</b> Herb Smith (18383)		
14724	I'm not for this. Few jobs. You know, you guys want to pollute the water -- these guys that want to use these chemicals, drink a gallon of that water in front of us and see how safe it is. Is it that safe? Are you guaranteeing that water is safe once they mix it in with that other water? It doesn't run one way.	SO01
<b>Sender Name (Submission ID)</b> Heyward Nash (2665)		
16441	Sulfide mining has never been done in Minnesota and threatens wetlands, rivers, lakes and streams across the Arrowhead Region, including Lake Superior and the Boundary Waters Canoe Area Wilderness.	WET24
16442	Acid Mine Drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred.	WR023
16443	I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations, and cumulative impacts from mining... The proposed mine poses unacceptable risks to our waters and communities.	WR115
16444	The Federal land exchange of protected Superior National Forests to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.	LAN01
16445	I ask that the comment period be extended to 180 days...	NEPA06
<b>Sender Name (Submission ID)</b> Hillary Peterson (18318)		
4261	Water from open mines and processing plants will be contaminated with heavy levels of sulfide. PolyMet initially stated they would capture all the contaminated water on site and treat it before it was released. However, their own plan now shows that millions of gallons of polluted water will seep off the site before any treatment can be done.	WR070

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Hillary Peterson (18318)		
4263	Minnesota law requires that sulfide mines be maintenance free at closure. This means a mine site cannot be ongoing with pollution when it is closed. The wastewater generated by sulfide mining is the source of dangerous pollution that by at least one mining company's own acknowledgement will be toxic for thousands of years.	PER04
9070	Trading 500 years of water pollution and immeasurable damage to the pristine environment of Northeastern Minnesota for a mere 20 years of mediocre jobs is desperately irresponsible.	SO01
9079	I ask the DNR to ensure financial assurance is in place for both a natural disaster and for the necessary treatment after the mine is closed...I also ask that this money is guaranteed to be easily accessed in full by the taxpayers of Minnesota when it is needed.	FIN10
9086	I ask the DNR to require extensive studies to explore the possible health risks for both works and the general public before this project is discussed any further.	HU04
9092	[T]here have been many legitimate concerns raised regarding: increased levels of mercury in animals, especially fish, destroyed habit for the rapidly diminishing moose population, the destruction of rare and pristine peat lands...and the destruction to wild rice plants. I ask the DNR to require extensive studies regarding how the mine will affect the destruction of these and other wildlife in the area before this project is considered any further.	AQ05, VEG03, VEG04, WI02, WI04
15208	Minnesota does not have a perfect track record, by any means, for regulating now existing taconite mines. ... Sulfide mining poses far more opportunities for environmental harm than taconite mining. If we are not able to fully regulate lower risk taconite mining, why should Minnesotans believe our governing agencies will be able to regular sulfide mining any more effectively? ... mining is extremely unpredictable and therefore particularly difficult to regulate.	PER06
15209	Especially given the fact there has never been a sulfide mine that has operated successfully and not polluted groundwater and negatively affected the ecology of the region where operation occurred, we should not be considering bringing this type of a project to one of the most water rich regions of the nation.	WR023, WR195
15210	I ask the DNR to require PolyMet to completely re-work their study of water flow in the area and new water modeling data be provided before this project is considered any further.	WR071
15211	I ask the DNR to not allow PolyMet to leave a mine behind that would require any type of maintenance or water pollution treatment.	PD01
15212	it would be truly helpful if discussion could be encouraged to talk about new ways to generate revenue in the area. For example, it is known there is a great deal of copper in this country that could be recycled and reused. I think it would be phenomenal if Northern Minnesota was known for a state of the art recycling plant for copper and other high demand metals.	ALT09, ALT16
15213	If this mine is built and operated as proposed, the Minnesota that we know andlove would be gone. Forever. Future generations will not be able to enjoy the absolute flawless wilderness that people from around the country and the world travel to experience. We owe it not only to ourselves but to generations and generation of Minnesotans to come to protect this sacred place.	WILD02
15214	I truly appreciate all the time and energy the DNR has put into this process thus far and I know everyone involved will continue to work tirelessly until the process is complete.	NEPA16
<b>Sender Name (Submission ID)</b> Holle Brian (7146)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Holle Brian (7146)		
485	I'm very concerned about what will happen after 20 years of mining.	PD01
487	I'm amazed that anyone could seriously consider this proposed mining operation knowing that the water will have to be monitored for up to "500 years"?	WR195
<b>Sender Name (Submission ID)</b> Holly Check (44596)		
11835	Despite PolyMet's claim that they'll be around in that time to continuously fund the treatment, if we're being honest, how many companies alive and well 500 years ago are still here today?	FIN01
<b>Sender Name (Submission ID)</b> Holly Nelson (58030)		
19842	The proposal is short sighted and will put the natural resources of our state at undue risk of harm.	GEN01
<b>Sender Name (Submission ID)</b> Hope Flanagan (18160)		
13310	We got to have clean water, clean food, clean places to go to get ourselves clean or we're going to have sickness.	HU03
<b>Sender Name (Submission ID)</b> Horovitz (54891)		
18824	Please protect the water quality and wildlife in N. Minnesota. The PolyMet plan does not have nearly the financial protection for these priceless resources that is needed.	WI13
18825	What if there's a waste spill or inclement weather? How is PolyMet insuring damages will be repaired?	PD22
18826	What's to stop [PolyMet] from going bankrupt and leaving a devastated landscape?	FIN01
<b>Sender Name (Submission ID)</b> Howard Heath (54792)		
18021	I am very concerned about the impact Polymet will have on our Hoyt Lakes drinking water, obtained from Colby Lake. As Hoyt Lakes (population 2020) only has a class 1-B chlorination system (7050-0470 Minn. Surface Water Rules), any changes in water quality from industrial water discharges will grossly affect the health of Hoyt Lakes citizens...Colby Lake is already highly impacted from former mining in the area, as well as the Minnesota Power Plant additions to the lake	WR123
18027	Mercury methylation & sulfate reactions plus aluminum, arsenic, etc. are all now potential health hazards to our citizenry.	HU03
18028	Regarding water monitoring, Vol I- pg. 3-45, year 40, the Reverse Osmosis will be upgraded to sulfate concentrations of less than 10 mg./L. With the present amount of sulfate and mercury, in Colby Lake, why wait for the "upgrade" to 40 years?	WR143
18029	No mining company on the Iron Range has lasted for 200-500 years (projected water monitoring time). All have declared bankruptcy, after they were finished!	FIN01
18030	Nothing is stated in the SDEIS on the particulars, or details regarding type of equipment or cost of the RO process, proposed. ... Pg. 3-52 states that a RO process would be added to the WWTF at closure. Again, why not at the beginning of water discharge?	WR143

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Howard Heath (54792)		
18042	Regarding the West Pit, Pg. 3-72 Reject concentrate would be "evaporated & solids disposed of off site." Where?! Pg. 3-63 Rail Transfer Demo.- acids and leachates to be placed in the West Pit. Pg. 3-65-the Partridge River in 20 years gets the sulfate concentrations after the RO upgrade?! Water will be clean, for years to come?!	WR143, WR145
18044	Pg. 3-72 According to the Gold Sim P90 model -200 years for monitoring? Polymet will monitor and maintain the water management for 200 years? Really?! This is not probable in today's mining world and way too costly!!	FIN01
18046	Water Sample Areas-Vol. I, Fig. 4.2.6-2 Map. The monitor spot, LCY-1 should be moved to "Un-named Creek" entry point into Colby Lake. Also samples should be taken where "Un-named Stream" enters the lake. Not a diluted sample out in the lake!!...Pg.5-219 States that only one location for Colby and one location for Whitewater Lake will be sampled during non-frozen conditions under the Monitoring Plan. This is not sufficient scientific sampling!	WR021, WR039, WR071, WR090, WR139, WR141
18053	Vol I, 3-112 Lists the extensive caustic materials that will be brought to the plant site, via rail and tanker truck. Nothing seems to be recorded as to retaining berms, railroad rails to be inspected, hazmat training for local fireman, etc- no secondary containment info? This plus 2-6000 gallon gasoline storage tanks on site,- with all drainage in area to the Partridge River & Colby Lake (Pg. 4-46).	HAZ01
18055	Drawing Raw Water, Pg. 3-114, from Colby Lake to plant site, "if needed"(Late Aug. the P. River is very low.) will concentrate all contaminates in the Hoyt Lakes water source.	WR181
18057	Emergency Overflow-from Tailings Pond, Pg. 3-117 to go to Partridge River, will be checked for contaminates and by pass? Where is the inspection info?	WR070
18063	Polymet should truthfully present some interesting environmental problems for the future. There is a difference between the SDEIS theory write up, and the actual operations on site. We have found this to be true, over the yearswith other environmental problems and mining considerations.	NEPA09
18065	If Polymet fails to meet their projections, and causes an environmental problem, the 2020 people in Hoyt Lakes will have their drinking water, bath and dish washing water, and clothes washing water, compromised!!	WR043
18068	Hoyt Lakes... will be economically stressed if property values drop, because of water problems caused by mistakes in mining. One must remember that public non- renewable resources are being utilized for corporate profit and what the cost my be, for future generations. Jobs are not our only consideration.	SO03
<b>Sender Name (Submission ID)</b> Howard Markus (18367)		
2547	Taconite mining does not use sulfuric acid. This mine will...It is ugly. It kills things. It is not what you want up here. It is going to seriously degrade the water resources up here.	PD27, WR025, WR195
2549	Right now the land proposed to be traded comes with the surface rights but not mineral rights. ... The EIS says all of these things are invaluable. Well, they're not valuable until they become valuable. I believe the Forest Service should reject the land trade and do it right by demanding both the surface rights and the mineral rights for all the lands traded or we're going to be in this circle where we have to go through all this again.	LAN04
2552	Really soon after the mine starts there is going to be discharges to impaired waters. .. This is going to be in ecosystems forever. It's going start out with no drainage and no pollution, and really soon there's going to be pollution, there's going permanent problems. ... There is just not enough limestone. It's all taconite.	WR109

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Howard Markus (18367)	
2553	we are trading upland valuable forest land and they are going to be traded for shrub forest wetlands. Not a fair trade.	WET14
18314	Pg. ES-11: "It is uncertain how long the NorthMet Project Proposed Action would require water treatment, but it is expected to be long term." The need for perpetual wastewater treatment and perpetual financial assurance can not be overstated.	FIN01
18315	Pg. ES-23,24: "... the waste rock in the temporary Category 2/3 and 4 stockpiles would be moved into the East Pit for subaqueous disposal...Eventually, all of the Category 2/3 and 4 waste rock would be moved to the combined East Central Pit..." Considering this pit is unlined, why is this the preferred method and why isn't this going to result in polluted ground and surface water in perpetuity?	WR029
18316	Pg. ES-31: "...All of the non-federal lands except Tract 4 have severed mineral and surface ownership, which means that the mineral resources would not be acquired with the surface..." The U.S. Forest Service must deny this permit until both surface and mineral rights are non-severed with the lands being traded.	LAN04
18317	Pg. ES-36: "The NorthMet Project Proposed Action is predicted to increase mercury loadings in the Embarrass River Watershed but decrease mercury loadings in the Partridge River..." Even if this "net effect" assertion is true, the Clean Water Act does not allow "trades" wherein one water body that already has increased mercury suffers increases in mercury while an offset is proposed in another river. Increased mercury can not be allowed in the Embarrass River.	WR109
18320	The only testing of the plan to use RO that I know of was based on inputting relatively clean water into the RO facility; this "test" does not come close to simulating the relatively dirty input that will exist during mining...Running an RO system at full mine scale with a less than drinking water-equivalent source water will be extremely daunting and expensive; consistently meeting water quality standards will be very challenging. The SDEIS must be revised to include a far more robust explanation of how this RO system will meet water quality standards.	PD03
18321	Comparing Tables 4.3.3-4, Pg. 4-447 with Table 4.3.4-1, Pg. 4-465: It appears higher value lowland coniferous forests in the proposed mine area are being replaced with lower value coniferous swamp forests; this SDEIS must be rejected until an even trade of forest resources is proposed.	LAN03
18323	Pg. 5-103, Figure 5.2.2-18: "Mine Site GoldSim Model version 5 East Pit Backfill Pore Water Sulfate Concentration Based on P50 Inputs." The lower backfill pore water curve in red reaches an asymptote of approximately 250 mg/L, well above the WQS, at year 200; an example of the perpetual treatment needs and perpetual financial assurance needs. The SDEIS must be revised to state explicitly the perpetual need for treatment and that impact on financial assurance.	FIN01, FIN08
18326	Pg. 5-201: "Mercury was not included in the GoldSim model, as insufficient data and a general lack of definitive understanding of mercury dynamics prevented modeling mercury like the other solutes..." This section discusses mercury from only a water-concentration perspective; the potential effects of the NorthMet Project Proposed Action on the bioaccumulation of methylmercury in fish are discussed in Section 5.2.6. This is bogus reasoning; it is likely that there are far more mercury data than many of the parameters that were modeled. This SDEIS must be rejected until mercury is modeled by GOLDSIM for both the Embarrass and Partridge Rivers.	MERC13
18334	Pg. 5-202: "...data suggest that mercury present in rainfall or released by sulfide oxidation is typically adsorbed by other minerals present in the mine waste rock..." Because the mercury is adsorbed and not absorbed, several important issues come into play: [1] adsorption sites fill and, once filled, mercury will flow through the system unimpeded, and [2] adsorption sites are unstable- conditions such as changes in pH could cause a significant 'dump' of mercury from the adsorption sites, causing significant down-gradient pollution.	MERC20
18336	Both the Embarrass River (04010201-579, impaired for a poor fish community) and Embarrass Lake [ 69-0496-00, impaired for mercury in fish tissue] are on the MPCA draft 2014 List of Impaired Waters. Increased mercury can not be allowed in the Embarrass River or Embarrass Lake.	WR109

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Howard Markus (18367)		
18338	In early 1990's, as staff of MPCA, I was the lead and coordinated the development of the Chapter 7050 Wetland Water Quality Standards. One guiding principle was that avoidance of wetland impacts was the preferred option. In this SDEIS, there are no realistic 'avoidance' option, such as an underground mine alternative that minimized and greatly avoided the massive amount of wetland loss proposed in this SDEIS. As such, this SDEIS must be rejected by the U.S. Army Corps of Engineers and the MPCA as failing the requirements of the Clean Water Act and Minnesota Rules 7050.0186.	ALT01, ALT13
18341	Pg. 5-373: "...Specific species such as loons, osprey, mink, and otter may be affected [by mercury exposure]...eagles may be less likely to be affected by mercury." There is no mention of loons in Section 5.2.6.2, as inferred from the PolyMet section above. It is disappointedly disingenuous to discuss at length eagles with less sensitivity to mercury and ignore the state bird -loons - that are known to be highly sensitive. The SDEIS must be withdrawn and rewritten to focus on mercury-sensitive wildlife, such as loons and mink, instead of relatively mercury-insensitive wildlife.	WI04
18342	There are no real alternatives in this SDEIS. As such the SDEIS must be rejected. An example of a real alternative would be to have an alternative in which all the pits lined, and then compare the improvements in water quality to the additional costs associated with lining all the pits.	ALT06
<b>Sender Name (Submission ID)</b> Howard Miller (21974)		
3307	This project will provide thousands of well-paid jobs and will help to provide North America with an inexpensive supply of copper and nickel plus ancillary precious metals.	SO10
<b>Sender Name (Submission ID)</b> Hser Hoo (54189)		
17207	The sulfuric acid will reduce the pH level and kill all the fishes. We won't get to fish in the river anymore.	AQ08, AQ12
17210	20 years... That's a long time to have to live through those loud machines.	N01
<b>Sender Name (Submission ID)</b> Hudson Mohawk Bird Club (20761)		
16163	More than 900 acres of wetlands will be directly destroyed by the mine, and an additional ten square miles of wetlands will be indirectly impacted by toxic dust and dewatering. The SDEIS proposes no mitigation for the indirect wetland impacts.	AIR09, WET01
16164	In addition to this destruction of wetland habitat, sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05, WI02, WI04
16165	The mine will threaten fish-eating birds like Belted Kingfishers, Common Loons, and Hooded Mergansers. Birds in need of conservation, such as the Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl, will lose suitable habitat if the mine is developed as proposed.	WI01, WI02
16166	The SDEIS is insufficient because it does not include a long-term water treatment plan, which is imperative to evaluate the environmental effects of this proposal.	WR035
<b>Sender Name (Submission ID)</b> Humphrey Kearns (3703)		
12345	Until it can be demonstrated that no contaminated water can leave the site, either in run-off or under ground, I can't support this type of mining in an area like the Arrowhead.	WR195

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Humphrey Kearns (3703)		
17004	Until it can be demonstrated that no contaminated water can leave the site, either in run-off or under ground, I can't support this type of mining in an area like the Arrowhead. Once you mess up a place it is pretty much messed up forever.	WR195
<b>Sender Name (Submission ID)</b> Hunter Maughan (46034)		
10615	Also because there are ecosystems, and this mining could endanger them. Or possibly destroy them for good.	NEPA15
<b>Sender Name (Submission ID)</b> Ian Kimmer (18320)		
4267	...I would like to see a more complete delineation of how we are going to pay for the water treatment facility that will be required to run perpetually in order to make sure that the water discharged from the site is not polluting our Northern Minnesota rivers, lakes, groundwater included.	FIN05
4268	So I respectfully request that we have the financial assurance piece, how we're going to pay for the long-term water treatment at the facility, included in the SDEIS process so that the public can participate, see how it's going to be paid for and come away with a reasonable assurance that if we are going to do this project that at some point the taxpayers are not going to liable for hundreds of years of water treatment.	FIN01, FIN05, FIN13
4269	As it is right now there doesn't appear to be any analysis behind the tax figures that are presented. In the original draft it was something in the neighborhood of 1.5 million. It is now 16 million. And as far as I understand it, the DNR did not do a tax analysis of the project.	FIN05
4271	Finally, there seemed to be some current conditions that are in the EIS that do not match what the actual monitoring stations read. And I would like to see that resolved. Because as we were looking at the future modeling, the models have never been accurate; however, they are good guidances and some of the current conditions anticipated by the model conflict with what we see at actual monitoring stations in the field.	PD29
12500	My first request, respectful request, of the co-lead agencies is that at over 2100 pages this document is an overwhelming conglomeration of information. And a lot of it is very difficult for a layperson or even many experts to understand. I first of all respect your request that we extend it from 90 days to 180 days for people to take in that information and review and provide comments.	NEPA07
<b>Sender Name (Submission ID)</b> Ian Wunder (19514)		
13282	The claim in the SDEIS is that PolyMet will decrease mercury and sulfate pollution in nearby waterways and will do this by operating water treatment systems that have not been detailed.	WR128, WR143
13283	The treatment plant designs have not been outlined in detail in this document, and this industry has a zero percent success record at containing waste toxins. Because of this detail, the SDEIS is insufficient and should not be approved. It does not provide this important information.	PD08
13284	Five centuries of water treatment will need to be paid for either by the mining company or by Minnesota taxpayers. These individuals in either case will be the future generations of Minnesotans and US citizens. They will be left with a legacy of pollution and wastewater that will need to be cleaned continually for more than half a millennium.	FIN01
13286	The mining industry as a whole is responsible for the largest and most costly environmental cleanups in our nation, and a large percentage of Superfund sites are the legacy of sulfide ore mining specifically. We do not need this legacy added to our Minnesota tax burden for so many future generations.	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ian Wunder (19514)		
13288	the economic possibility of extracting the ore in an underground mine has not been fully explored...the SDEIS should not be approved based on the fact that this method of mitigating and avoiding environmental degradation has not been explored.	ALT01
13289	The entire 3,014-acre mine site is classified as high biodiversity significance and houses endangered, threatened and special-concern plant species, as well as used habitat by many rare and important bird species, as well as other rare and important Minnesota wildlife. There is not sufficient action outlined in the SDEIS to mitigate the disturbance of this specific, very important ecosystem habitat.	VEG01, VEG02, VEG03, WI01, WI02
13301	The SDEIS is insufficient and should not be approved on the basis that the proposed wetland mitigation will only cover 912 and a half acres of wetland impact by the PolyMet operation. Ten additional square miles or more of wetlands as well as surrounding area are projected to be indirectly impacted by drainage, decrease in water level and the addition of toxic materials in the form of blown dust.	WET01
13302	There is absolutely no monitoring plan that will be able to mitigate damage immediately.	WET24
13303	Additionally, any damage that does occur will be occurring on bogs and coniferous swamps that are extremely difficult to restore and are ecologically sensitive and very important.	WET05
<b>Sender Name (Submission ID)</b> Iana Studelska (57272)		
17415	I am unwilling to trade 20 years of “jobs” for a future of sulfide pollution and the compromise of the Lake Superior Basin.	SO01
<b>Sender Name (Submission ID)</b> IBEW294 (7607)		
792	The PolyMet project is an Important part of northeastern Minnesota's economic future. As an Iron Ranger I am confident that this project will provide us with long term jobs.That is good paying jobs not minimum wage jobs	SO10
794	The environmental review process has been lengthy and thorough. The supplemental draft EIS addresses the potential environmental impacts and how to mitigate them.	NEPA16
797	I also think that by letting PolyMet mine with the controls that have been put in place will clean up a brown area the old LTV mining sight.	PD28
798	We can control the pollution here but we have no control in other countries.So if we don't mine here, There will just be more uncontrolled pollution in other parts of the world which still affects us here.We should be using our recourses and controlling the environment.	ALT16
<b>Sender Name (Submission ID)</b> Ida DeLisi (10088)		
333	No mining has been proven to be safe, all mining destroys at least some part of the environment, and water is a resource we can't waste.	WR023
334	No mining has been proven to be safe, ...The risk to human health is too high.	SO01
335	I question the estimate, because I don't believe it takes everything into consideration, particularly when it will be us, the taxpayers of Minnesota footing the bill for the cleanup, and trying to live with the destruction of not only our business but the loss of a pristine national public area for at least 500 years.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Igra Jamari (54191)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Igra Jamari (54191)		
17217	I think you should not mine there because you can find or make copper and nickel at other places.	NEPA09
17218	Also it will harm and destroy animals, environment and also other state near MN.	WI04
<b>Sender Name (Submission ID)</b> Illegible (42838)		
14697	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range. We need this for Minnesota jobs and development! I encourage a permit to be granted for this endeavor.	SO10
14697	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range. We need this for Minnesota jobs and development! I encourage a permit to be granted for this endeavor.	SO10
19344	One, concern I have is of the failure of the infrastructure over the verylong life of the project and need for water control. The membranes being proposed for use have not been tested in reallife conditions to determine how they will hold up over a long time span. Also, the materials used for the pumps, indeed all the gaskets, sealants, wiring, joint compounds and such have unknown life spans and dependability. Most of these materials have not been in use in conditions such as these and for time periods as long.	WR129
19345	Another concern I have is that some of the information in the SDEIS has been provided by data from PolyMet itself. I have read reports of some of their data being in contradiction to data being provided by independent groups studying the issues. One example of this is amount of water flowage, believed to be very underreported by studies done that Nancy Schuldt was involved in.	WR071, WR189
19346	The last concern I will state ... is that some of the fact and figures are based on computer models which are not taking into account weather events, climate change, forest fires and such.	PD22
19347	I can not understand taking these huge environmental risks for a few hundred short term jobs to make money for a multinational corporation which will ship the copper mostly overseas.	SO01
19348	many years of copper are already stockpiled for use so what is the rush to build this mine with the risks involved.	NEPA03
<b>Sender Name (Submission ID)</b> Illegible, George (58002)		
19875	The cost to our future are not balanced with the short-term benefits that will be provided to private investors.	SO01
<b>Sender Name (Submission ID)</b> Illegible, Terry (58110)		
20017	This seems like a short-sighted project that could be very detrimental for our environment. There does not seem to be a reasonable plan for all the harm that could ensure. No one will be responsible for 500 years.	FIN01, GT01
<b>Sender Name (Submission ID)</b> Ilze Mueller (16278)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ilze Mueller (16278)		
10484	Instead [of the PolyMet Mining project] we should be working to further develop local jobs in the tourist industry on the North Shore decent jobs that do not jeopardize our precious environment.	SO02
<b>Sender Name (Submission ID)</b> Ingdal, Leisha (14886)		
1775	The people of Minnesota deserve better than a short term employment gain at the cost of polluted water for 200 years!	SO01
<b>Sender Name (Submission ID)</b> Iris Sinai (14184)		
14314	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for--information that is necessary to evaluate the environmental effects of this proposal.	WR035
14315	More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering. The SDEIS proposes no mitigation for the indirect wetland impacts.	WET01
14316	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior. Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons.	WI01, WI02, WI04
14317	four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Irv Berlin (30614)		
13996	To my knowledge sulfide mining has never been done without polluting the environment. Doing it in an area that could contaminate Lake Superior and the famed Boundary Waters Canoe Area seems to be the height of folly. Risking Superiors waters, the recreational economy of the area, public health, and the environment in general is not worth the profits to the company that proposes this disaster.	SO01, WR111
<b>Sender Name (Submission ID)</b> Isaac Anderson (42511)		
1823	One idea that I suggest is to examine the viability of opening a precious metal recycling plant that would preserve the environment, provide needed metals, and provide jobs and industry.	ALT09
15410	We as a nation need to grow and expand, and a project like this is a step in the right direction. We need to keep the great Midwest GREAT and supply jobs and livable wages to the hard working people of this great region/nation.	SO10
15411	As far as environmental impact is concerned; this is the 21st century. We have the tools, intel, technology, know-how, and man power to safely and cleanly build and run this mine in a efficient and environmentally friendly manner.	PD28
<b>Sender Name (Submission ID)</b> Ivan Zenker (11271)		
799	I just don't feel some jobs in the short run justify the danger to the watershed areas that surround the site.	SO01
1600	And I believe that asking for a company to promise stewardship many, many years into the future to treat the water long after the profits are gone is just not something we should count on.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ivy Wright (54555)		
18962	Sulfide mining has been shown to be toxic to the environment. Financial gain for foreign or American companies is a shameful reason to destroy our world.	SO01
<b>Sender Name (Submission ID)</b> J Brophy (39412)		
7218	The supposed short term gain via jobs would be a small scale, short term boost at best. And the jobs would be grossly outweighed by the risk of water pollution and contamination that will continue for centuries after the mining is completed.	SO01, WR115
7221	PolyMet may sign on to promise clean up, but companies go bankrupt all the time, so what financial guarantees will there be to make sure the clean ups actually occur?	FIN01
<b>Sender Name (Submission ID)</b> J Cherveney (16517)		
1572	I can hardly believe that anyone would want to risk our precious clean water for any job or mine or promise of money.	SO01
2035	Yet people in our state are willing to risk our fresh water for a generation of jobs with the promise of a clean up if the inevitable contamination occurs.	SO01
2036	Please deny the permits they are requesting. It's not just for me that I am asking this. It's for my children and grandchildren as well. They deserve the same clean water that we have enjoyed and have a right to---yes, a right to.	PER35
<b>Sender Name (Submission ID)</b> J Kolstad (47773)		
8144	This [project] will create a minute number of jobs considering the area, the number who need jobs and the jobs projected even by the proponents. Plus there is no guarantee that any area people will get these jobs or what they will be paid.	SO02
8148	The study by PolyMet states that the sites will be polluted for 500 years...Who will be here for 500 years to manage this?...the Financiers, stockholders, parent corporations or those receiving any benefits from this project should be [held] permanently responsible until total recovery and liability is satisfied.	FIN01
8151	There is a world full of these and other metals, that could be recycled but are not. If recycling got the same tax breaks [as] mining, there would be an abundan[ce] of these metals and others. Recycling would not pollute the environment or put a region at risk of disaster.	NEPA06
11175	75% of current jobs in the area are non-mining. These jobs are based on Lakes and Woods and prestine environment. Ironically, the PolyMet type mining could very likely cause permanant job loss.	SO02
<b>Sender Name (Submission ID)</b> J Patrick Kegley (18171)		
13356	The ecology must come first. We cannot restore the ecology. You cannot restore things once they're damaged.	PD01
13358	We can reclaim and reuse copper. 24 percent of the copper of the world comes from reclaiming it. We don't have to continually mine it and rip apart the earth to do it.	NEPA06
<b>Sender Name (Submission ID)</b> J Van Dyne (58162)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> J Van Dyne (58162)		
20024	We need to think about the 7th generation and what we may be leaving behind. As a society, we tend to be shortsighted. Jobs for 20 years! Sure they worth the travesty, wrecked on our environment which will impact us economically, physical – both health wise and topographically.	SO01
<b>Sender Name (Submission ID)</b> J. Alvey (41852)		
14096	This mine is an entirely different type of operation and has different environmental impacts than iron mining does. The risks are too great.	PD27
<b>Sender Name (Submission ID)</b> Jace Carlson (57139)		
16833	Sulfide mining in other states has been extremely detrimental to the water around the mines and in an area like the Superior National Forest with valuable peatlands, this kind of pollution would be unacceptable.	WR023
16834	The fact that there are no safeguards for when things go wrong makes this plan even scarier.	PD01
<b>Sender Name (Submission ID)</b> Jaci Christenson (47458)		
10532	PolyMet and the SDEIS do not acknowledge the true cost of the proposed PolyMet sulfide mine. PolyMet is a lean deposit of copper-nickel, therefore, 99% of what is dug out of the ground will be waste. For that 1% gain in metal, the true cost will be unfathomable. The toxic extraction process will be energy and water intensive (releasing 200,000 metric tons of carbon dioxide). Even more water and energy (generating 707,000 metric tons of carbon dioxide each year) will be used in processing; leaving us with even more waste that will need to be managed for 500 years. This is in direct opposition to Minnesota’s goal of reducing greenhouse gas emission by 30% by 2025.	SO02
10535	Lastly, it can no longer be ignored that fresh water is a precious resource and must be treated as such	WR195
<b>Sender Name (Submission ID)</b> Jack and Rhoda Liebo (4146)		
871	the decision to move forward past this ridiculous review shows a sense of panic on the part of the officials in government to produce(in the short term), good economic growth.	SO01
872	Externalizing toxic water soluble poisons, which are currently well insulated from doing us harm, into this glorious region of Minnesota, shows a complete absence of understanding.	WR111
948	they will extract our wealth, freeing deadly polluting poisons that will contaminate our environment, kill the fish and the precious watershed, leaving us, some time within the next 500 years to cover the cost of cleanup.	FIN01
949	[The NorthMet Project will negatively impact] land values... and the budding conservationists tourist industry.	SO02
1519	No matter what the industry suggests, there are no big breakthroughs that will suddenly make this type of mining safe for the local watershed.	PD32
<b>Sender Name (Submission ID)</b> Jack Brunell (15964)		
952	I feel the current State regulations adequately safeguard the Northern Minnesota environment.	PER34

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Jack Carrick (21543)	
1310	Some of the obvious possible failures of even a good plan [re: Proposed Action] are: 1. a 1 00 year weather event and the whole area overflows.	WR057, WR077, WR180, WR193
1312	[Some of the obvious possible failures of even a good plan [re: Proposed Action] are:] ... 3.heavy equipment throws up dust, in the summer the wind is usually out of the south blowing toxins directly into the BWCA (the fish already have high mercury levels from coal plant dust hundreds of miles away).	AIR09
1315	[Some of the obvious possible failures of even a good plan [re: Proposed Action] are:] ... [what happens if] 4. a tornado hits and blows the waste all over the place. 5. a dam fails 6. a containment membrane fails 7. a reverse osmoses filter fails 8. a pipe breaks 9. a rail car or truck derailes 10. engineering miscalculation ... 12. worker error [causes impact]	PD22
1318	[Some of the obvious possible failures of even a good plan [re: Proposed Action] are:] ...11. bankruptcy and bond to cover bankruptcy fails (500 years is a long time)	FIN01, FIN08
1935	[Some of the obvious possible failures of even a good plan [re: Proposed Action] are:] ...2. the area is mostly rock but there could be crevasses where contaminated water can slowly leach.	WR012
12260	there has never been a sulfide type mining operation that has not polluted. PoliMet spent years and a ton of money on trying to get EPA approval and can't even get it correct on paper?! How in the world would they be able to do it for real? And take care of the upkeep?	GT14
12264	Some of the obvious possible failures of even a good plan are; ...a 100 year weather event and the whole area overflows...a tornado hits and blows the waste all over the place...a dam fails... a containment membrane fails...a reverse osmoses filter fails...a pipe breaks...a rail car or truck derailes... engineering miscalculation	PD22, WR202
12265	the area is mostly rock but there could be crevasses where contaminated water can slowly leach.	WR012
12266	heavy equipment throws up dust, in the summer the wind is usually out of the south blowing toxins directly into the BWCA (the fish already have high mercury levels from coal plant dust hundreds of miles away).	AIR05
12273	[One] obvious possible [failure] of even a good plan [is]...bankruptcy and bond to cover bankruptcy fails (500 years is a long time)	FIN01
13731	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN13
14597	I attended the meeting last week and saw how important jobs are to the miners and the tax base of the area but please, think of the future.	SO02
14598	2.The area is mostly rock but there could be crevasses where contaminated water can slowly leach.	WR012
14599	3.Heavy equipment throws up dust, in the summer the wind is usually out of the south blowing toxins directly into the BWCA (the fish already have high mercury levels from coal plant dust hundreds of miles away).	AIR08
14600	We're already limited to how much fish (probably the healthiest food known to man) we can eat from Minnesota lakes. Help clean the lakes and drinking water, don't make things worse.	AQ11
<b>Sender Name (Submission ID)</b>	Jack Fulton (54790)	

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jack Fulton (54790)		
17998	The risk to the BWCA, a protected and mostly unspoiled wilderness ...and the threat to our fresh water is too great.	WILD02
18001	...Polymet predicts that 500 years of water quality mitigation will be needed for ...a 20 year project. To think that a 500 year plan for anything, let alone a feat as complex as water mitigation can be effective is foolhardy and ...arrogant.	WR115
18005	Further reason to deny Polymet a mining permit are the recent revelations in the Star Tribune of the damage that taconite mining has done to the stands of wild rice due to the release of sulfates in waterways. ...I took from the article that redemption of these stands is possible. But I doubt if that will remain true if Polymet is granted its desired permit.	VEG04, WR156
<b>Sender Name (Submission ID)</b> Jack Furry (11158)		
674	The reward far outweighs the risk. It would open up hundreds of new jobs and it would provide us with metals that we need in our everyday life.	SO01
676	The open pit mine they are hoping to construct would most likely pollute the area's watershed, which is all of the water under the ground, which in turn, could end up reaching the Boundary Waters.	WR111
679	For one, based on an unbiased article I read, the estimated amount of ore underneath the northern regions of Minnesota totals out at well over one trillion dollars. That would really benefit the state financially.	SO10
685	Another reason they should go forward with mining is because it would open up a multitude of new jobs for the unemployed residents of Minnesota, mainly those that live in northern Minnesota, where jobs are scarce.	SO10
1570	Once these toxins reach the lakes in the region the fish are sure to die.	AQ05
1571	The company also hasn't assured us that they will leave the area in good condition when they are done.	FIN01
<b>Sender Name (Submission ID)</b> Jack Huhta (18081)		
3204	We've made [PolyMet] -- we put them through a lot more than the average corporation would ever think of going through. The cost, the frustrations and the delays are unbelievable...I can't imagine nine years what they've gone through trying to get this process forward. Our schools, our streets, our roads, we need something. We need a tax base so we can provide an education for our kids.	SO10
<b>Sender Name (Submission ID)</b> Jack Hwinta (58109)		
19995	The Polymet Project will not only benefit northern Minnesota. It will provide resources and raw materials for manufacturing which will benefit the entire state of Minnesota	SO10
<b>Sender Name (Submission ID)</b> Jack Parker (38261)		
13673	They have led the opposition up paths where they have little to worry about, and they withhold most of the information which they would rather not bring to light. For that reason we must insist on seeing all of the basic information, not what they want the public to see...Provide all the geological information needed for an independent evaluation of underground mining.	ALT01, PD30
13769	If, for example, they cannot give us absolute assurance that Lake Superior will not be harmed - then there should be no mining.	WR195

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jack Parker (38261)		
13770	Demand too financial assurance that all damage will be remediated.	FIN08
13771	Keep in mind their multi-billion dollar reasons for being and trust them as far as you can throw them. Check their social and environmental records.	SO02
16686	I suspect that the MN ore could be mined selectively underground, so ameliorating many problems with the environment, but I see that PolyMet dismisses the possibility, essentially "Because I say so". We cannot correct them because they will not disclose details of geology. Part of their plan.	ALT01
16687	I submit that we, the people, cannot and should not accept PolyMet statements unless we can confirm them via original data.	PD23
16688	As a demonstration of good faith how about them submitting all known facts about the "orebody" (which it is NOT until factors including environment are satisfied) to a worthy mining group for evaluation.	PD30
16690	I see nobody working on remediation of open pits to end up with enhanced landscapes. That is not impossible.	PD01
16691	I would encourage your leaders to INSIST that PolyMet share the basic data - not their doctored versions. And not make any more moves until your requirements are satisfied.	NEPA15
<b>Sender Name (Submission ID)</b> Jack S Sneve (57237)		
17326	I am voicing my concern for the destruction of 913 acres of irreplaceable wetlands along with another 7,350 acres in the St. Louis River watershed that would be affected (SDEIS, p 5-224).	WET24
17331	This mine and its water if allowed to proceed, will effect all living things "down stream" in the Lake Superior basin. This area of northern Minnesota that is so very water rich could very quickly be polluted. All ecosystems are interconnected. Mining harm to this area will effect the whole environment,	GEN01
17340	every sulfide mine has had a 100% failure rate. Untreated seepage forever for all living beings.	GEN01
<b>Sender Name (Submission ID)</b> Jack Treher (11634)		
2323	I would like to know how you consider 10g/min of untreated water released insignificant <5% total mine site water releases is significant.	WR149, WR157
2324	Land Exchange with the Forest Service should not be accelerated, the process should be completed in full, this is close to a 10 year process for others	LAN10
2325	Where has Polymet proved they can do this type of mining safely & without pollution?	PD23
2326	What happens when we have a storm like they blow down in the Boundary Waters and Canada a few years back. How will such an event impact this mining and pollution?	PD22
2327	What happens in 40, 50, 100...years when PolyMet is not around?	PD24

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jack Treher (11634)		
8232	Land Exchange with the Forest Service should not be accelerated, the process should be completed in full, this is close to a 10 year process for others.	LAN10
8236	Where has Polymet proved they can do this type of mining safely & without pollution?	PD23
<b>Sender Name (Submission ID)</b> Jacki Fisher (54497)		
18124	...to believe it [water treatment using reverse osmosis] could be done without some major problem, for 200 years is totally unrealistic. How can anyone guarantee something for 200 years? How much money has to be set aside for the clean-up? What if the company goes bankrupt? What about deep seepage? What about unforeseen weather events? (...) 360 jobs for 20 years, 200 years of clean up? Please let's not take chances with the water - by far the most valuable resource on the planet.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Jaco Conway (57960)		
19850	I am also infuriated that these companies have eventual mineral rights underneath my land.	LU02
<b>Sender Name (Submission ID)</b> Jacob Crawford (9604)		
221	Approving such a project would put wildlife and human health at risk as well as the good reputation of the state of Minnesota.	WI13
1135	... not least among them being the Boundary Waters Wilderness, which this mine will almost undoubtedly affect adversely.	WR111
<b>Sender Name (Submission ID)</b> Jacob E Davis (47064)		
10947	The environmental impact survey is based on the iron range and its geology, where as the actual mine site is entering into the Duluth Complex. This misrepresentation of the geological implications of the proposed mining site is misleading to the public. Further, it is flawed science.	PD31
10949	Stop letting corporations extract wealth from our lands only to leave us with pools of toxic waters for 500 years.	WR195
10950	Recreation is far more important to northeastern Minnesota than mining.	LU06
<b>Sender Name (Submission ID)</b> Jacob Kjome (50308)		
11005	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR060, WR181, WR182, WR195
12569	[The PolyMet] project would decimate Minnesota's fresh water for hundreds of years.	WR115
12570	...how many companies do you know that are till around for cleanup after even 100 years, let alone 50, 25 or 10. If it'll be cheaper for them to go bust, then that's what they'll do ...They'll take their short-term money and run leaving us with a long term costly, disastrous, mess.	FIN01
16210	how many companies do you know that are till around for cleanup after even 100 years, let alone 50, 25 or 10. If it'll be cheaper for them to go bust, then that's what they'll do and you know it. They'll take their short-term money and run leaving us with a long term costly, disastrous, mess.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jacque Lively (39700)		
6416	PROTECT THE PEOPLE OVER CORPORATE GREED AND FINANCIAL TERRORIST, please~	SO02
<b>Sender Name (Submission ID)</b> Jake Giefers (54183)		
16435	Building this mine will pollute the beautiful waters and put people in danger. Sure it may create jobs, but the negative impacts such as waste and pollution will weight those out.	SO01
<b>Sender Name (Submission ID)</b> Jake H (11362)		
261	I believe that the responsibility for such costs should rest entirely on the company- a responsibility which cannot be realized given the indefinite nature of the environmental impact.	FIN01
1641	Also, I believe the increased demand for Coal-generated electricity, as a result of new mining operations such as this, would be a step backwards in the direction our state should be heading. We should instead be looking for ways to reduce our energy needs and diversifying our energy sources away from coal.	AIR01
1642	n June 2012, the region I live in (Duluth area) experienced a historic flood, the likes of which I had not thought possible. The St. Louis river saw peak flows of 56,000 cubic feet per second, 40% higher than the previous record. What would the consequences be if such an extreme precipitation event (10 in+) were to occur in the region of the proposed site, either during or after mining operations? Would the tailings basin overflow and contaminate flood waters? How would a situation like that be managed if the power went out, as would likely to be the case in such a scenario? Would the waste water pump and treatment facility still be operational?	PD22
<b>Sender Name (Submission ID)</b> Jalene Betts (47705)		
8056	It is in our interest to preserve the attractiveness of our wilderness and parks not only for our own enjoyment, but also for the enjoyment of visitors to our area. Tourists as well as locals seek out our area as a haven a multitude of outdoor activities, including (but not limited to), hunting, camping, canoeing, and fishing. Our robust and constantly expanding tourist economy depends upon [these visitors].	SO02
8057	The economic impacts of losing the robust recreation and tourism industry we have so carefully constructed would be catastrophic. In this way, we depend upon the natural beauty healthy environment of the Arrowhead region for our jobs.	SO02
8062	It is not logical to jeopardize over 18,000 jobs in our recreation and tourism industry in order to provide a few hundred people jobs in a destructive sulfide mine that will only turn a profit for 30 years, and...will require cleanup of the pollution by sulfuric acid and heavy metals it causes to our water for over 500 years.	SO01
8064	[T]he SDEIS provides no credible information or details about the actual cost or viability of monitoring a pollution cleanup project for such an extensive period of time.	FIN05, FIN11
8068	Risk of mercury poisoning would prevent local people from eating the fish they catch and thus decrease locals' food self-sufficiency, forcing us to rely more on imported food.	MERC02
11138	The health of our regional economy depends upon its diversity. What threatens our environment also threatens our economy.	SO02
11143	According to Minnesota Rules 6132.3200, at the time of its closure the mine site must be maintenance-free. The PolyMet plan for 500 years of cleanup...breaks this rule	PER04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jalene Betts (47705)		
11146	The PolyMet plan for 500 years of cleanup...shows its face as an unscientific and haphazard, shoddy attempt to pull the wool over the eyes of the public with the utterly unrealistic expectation that PolyMet could be held accountable over such an absurdly long period of time. I cannot think of a single institution that has lasted that long.	PD01
11150	The PolyMet project should not be allowed to proceed because of the already blatant attempts to cover up and hide the negative impacts of an extremely destructive project. The neutrality the SDEIS is compromised and it should therefore be rejected and thrown out.	NEPA15
<b>Sender Name (Submission ID)</b> James A Ahrens (41863)		
16450	Those of us who love the boundary waters and the many species of wildlife and especially birds fear that proposals such as this will bring long term losses that cannot be justified by short term profits.	SO01
<b>Sender Name (Submission ID)</b> James A Seme (42561)		
6924	Mines Gone Wrong: AMD Acid Mine Drainage and Toxic (poisonous) metals from modern mines using the latest technology. The waste cannot be harnessed from destroying pollution in the air, water and ground. Do we want this to destroy our beautiful area of trees, lakes and water?	AIR11, WR023, WR115, WR195
<b>Sender Name (Submission ID)</b> James Ahrlin (54884)		
19598	The big argument against Polymet seems to be the sulfur residues leaching into ground and surface waters. Has anyone considered shipping the sulfur away from here to someplace like North Dakota? Farmers there could use it to neutralize certain soils that tend to be very alkaline.	ALT09
<b>Sender Name (Submission ID)</b> James Amato (36348)		
3783	[Copper mining, as proposed by PolyMet] carries increased risks to the environment which in my opinion have not been adequately addressed.	NEPA09
13734	The waterways of northern Minnesota are a priceless asset. They have enriched our lives for countless generations and should be passed on unspoiled to future generations. A comparative handful of jobs for a few decades do not justify the immense risk involved.	SO01
<b>Sender Name (Submission ID)</b> James Amundsen (38826)		
5059	From our point of view, the danger is so catastrophic that there is no way we would want this area's unique beauty to be risked for generations, much less for our generation.	LU04
<b>Sender Name (Submission ID)</b> James Barrett (38809)		
4949	Is it possible to capture 100 percent of the water on site so there would be no water pollution? What about seepage underground?	WR118
4951	Is the Polymet proposal the sole project or the tip of the iceberg of several such projects in the greenstone geologic formation under consideration by mining companies and the government?	CU04
4971	Are there other mineral mining projects under consideration north of Babbitt that would result in polluted water flowing north into the Boundary Waters Canoe Area and Canada?	CU02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	James Barrett (38809)	
16999	The question is whether we'll sacrifice one of the primary pure water resource systems of Northeastern Minnesota and North America in exchange for temporary jobs.	SO01
<b>Sender Name (Submission ID)</b>	James Beaty (38357)	
13663	I 100% support responsible mining in this area. I want to see healthy young families grow and prosper here like I did. Tourism never did and especially with the creation of "Disney Woods" never will provide livable wage jobs.	SO10
<b>Sender Name (Submission ID)</b>	James Beaumont (57461)	
19513	I believe the PolyMet Mining project should proceed. The PolyMet Mining water quality study, the Superior National Forests bio. Assessment and evaluation as well as the United States Army Corp of Engineers have done an extensive review of the proposed project and long-term effects.	NEPA16
<b>Sender Name (Submission ID)</b>	James Borden (9311)	
103	This mining deal doesn't really present viable, sustainable jobs and may only last 20 years whereas the potential for pollution may be up to 500 years.	SO01
412	It will only go for 20 years, with a minimum of jobs, especially compared to the jobs we get from sustainable tourism in Ely area	SO01
413	[It will] produce sulfuric acid in all the waters it drains to including Lake Superior, the largest supply of fresh water in the US.	WR111
921	With two major watersheds that could potentially spreading sulfuric acid into Lake Superior and the Hudson Bay.	WR081
<b>Sender Name (Submission ID)</b>	James Bussa (6316)	
1069	Say no to mining in the BWCA. A handful of jobs is not worth 100's of years of pollution.	SO01
<b>Sender Name (Submission ID)</b>	James Cunningham (33549)	
12322	This mining activity will pollute one of our nation's largest bodies of fresh water. Not a good idea unless you want to poison Americans.	HU03
<b>Sender Name (Submission ID)</b>	James David Cole (57232)	
17179	The costs to clean up the problems left behind far exceed the profits taken!	SO01
<b>Sender Name (Submission ID)</b>	James Denman (43645)	
12563	Polymet will emit 46 lbs of mercury/ year that will cause harm to visitors to the BWCA and local residents.	MERC03
12565	It will destroy Moose and lynx habitats	WI02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> James Denman (43645)		
12571	The project will affect over 1000 acres of valuable wet lands.	WET24
12572	The project does not seem to benefit the local residents nor the citizens of Minnesota. The risk to the area is high compared to the benefit of the project is low for Minnesota overall.	SO01
15105	The risk of Sulfide pollution is high.	WR111
<b>Sender Name (Submission ID)</b> James Everest (51507)		
13189	As a lifelong resident of the state of minnesota, one of the things I hold most dear is the Boundary Waters Canoe Area and North Shore of Lake Superior...Please do not put short term profits ahead of invaluable, irreplaceable natural habitats that so many of us cherish and rely on to help define who we are as minnesotans.	WILD02
13661	Please do not put short term profits ahead of invaluable, irreplaceable natural habitats that so many of us cherish and rely on to help define who we are as minnesotans.	SO01
<b>Sender Name (Submission ID)</b> James Farrells (42781)		
6755	Our forests and waters have provided much enjoyment over those years, but I fear the corporations have an eye on our forest land, not to enjoy it or preserve it, but just for the profits that will make destroying it! Poly Met Mining Corporation would destroy our forests and pollute our waters without seeing the beauty in front of their eyes, but seeing only profits...Poly Met Mining Corporation is backed by the Glencore company. They do not have a good track record in the mining field.	LU06
6758	•When the water is polluted and would remain so for hundreds of years, how can you determine the liability cost to fix the environment? Who will control or have the responsibility for the money, the state or Poly Met?•Who is responsible for the reclamation of the forest when mining is over? Will money be set aside for the restoration?•Who would be responsible to oversee or check on the Poly Met mining operation? How often would inspections be done and how thorough would they be?•If the mine did pollute, could this whole operation be shut down for good without question? Would Poly Met be responsible for land reclamation at this time?•What type of roads would be necessary and how much of the forest would that consume?	FIN01, FIN05, FIN08, WR037, WR128
6762	What study was done to determine the amount of damage to the water quality and to any possible endangered species eliminated by the pollution?	WI01, WI04
6764	•Would the workers be provided with a living wage, and how many of them would be local?	SO04
6765	•Could the wind blow dust that contains contaminants over a large area?•What kind of pollutants would be airborne and how would that affect the towns people living down wind?•What are the health risks to people exposed to the dust? How about the workers exposure? Would there be money set aside for treatment of health problems occurring because of this?	AIR09
<b>Sender Name (Submission ID)</b> James Fournier (14988)		
8912	In addition, since Polymet broadcasts the relatively few number of long term jobs available to current residents of the area, I would like you to address the following... How many outdoor recreational and tourist oriented businesses will be threatened...How many jobs may thus be lost?...How will property values be negatively affected?	SO04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> James Fournier (14988)		
13809	How many outdoor recreational and tourist oriented businesses will be threatened by the many mine that will come on board, along with the pollution they will cause?	SO02
13810	How many jobs may thus be lost (in the recreation industry due to the mine)	SO04
13811	How will property values be negatively affected ? (As some already have because of the proximity of drilling?)	SO03
13812	How will the ability to sell a home or cabin nearby to mining operations be affected?	SO03
<b>Sender Name (Submission ID)</b> James Grindeland (52516)		
15345	this type of mining will make clean water more valuable than the minerals mined.	WR195
<b>Sender Name (Submission ID)</b> James H Brutger (42792)		
6876	we hope the current beautiful environment surrounding the cabin will remain long after we pass on. I wish I could put my full trust in the science involved and in our elected officials who will finally make the decision to accept the mining plans or to reject it.	LU06
6877	...I would like to see another job source materialize so that the lure of twenty years of work doesn't blindsides us into accepting what could be a long term bad pollution of the waters.	SO01
<b>Sender Name (Submission ID)</b> James H Juntti (11574)		
14178	As a life long northern Minnesota resident I am concerned about this type of mining will have on our state's watershed. I am not confident that this form of mining, no matter how meticulously engineered, will safely protect our water resources which forms the backbone of our state.	WR115
14178	As a life long northern Minnesota resident I am concerned about this type of mining will have on our state's watershed. I am not confident that this form of mining, no matter how meticulously engineered, will safely protect our water resources which forms the backbone of our state.	WR115, WR195
<b>Sender Name (Submission ID)</b> James H. Stout (21542)		
1304	The negative impacts of sulfide mining on the quality of water, air, soil and plant life are exceptionally well documented in the literature. All 14 of the currently active sulfide mines in the U.S. have suffered some level of environmental damage with remediation costs in some cases amounting to many millions of dollars (Gestring, B., 2012, <a href="http://www.earthworksaction.org/files/publications/Porphyry_Copper_Mines_Track-Record.pdf">www.earthworksaction.org/files/publications/Porphyry_Copper_Mines_Track-Record.pdf</a> ).	REF01
2009	all of the currently operating sulfide mines in the U.S. went through an EIS process where "promises" of no pollution were made. All have failed to some degree. ... it not a matter of "if" we are going to see environmental pollution in the proposed Polymet operation, but rather "when" it will be.	PD01, PD26
2010	The ...risk in Minnesota [from the NorthMet Project] will be to the flourishing recreation industry centered on the BWCA and Superior National Forest. The economic benefits of this use of our resource is guaranteed in perpetuity in contrast to proposed mining operations in that area.	SO02
<b>Sender Name (Submission ID)</b> James Hacking (9551)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    James Hacking (9551)

190 This is a great project with huge economic impact for all of northern Minnesota. Tax revenues for the state, job creation, and much needed resource for all. SO10

**Sender Name (Submission ID)**    James Hall (15382)

14611 The PolyMet NorthMet SDEIS does not account for or even mention Glencore, the largest shareholder in PolyMet. Glencore is a global commodities and mining company, with a long record of environmental pollution and anti-labor practices. PD23

14612 The discussion of financial assurance in the SDEIS is inadequate in several ways, but one is the lack of any mention of Glencore - the largest shareholder, largest funder, and owner of the first five years of minerals from the proposed NorthMet mine. Since PolyMet is a junior mining company that has never operated a mine before, and since their assets are limited, the best guarantor of bankruptcy-proof financial assurance is the inclusion of Glencore in any potential liability from pollution at the site. FIN02

14613 Taxpayers have incurred billion in cleanup costs, at times due to an inability to pursue the parent companies that bankroll junior mining companies. The PolyMet SDEIS should establish that the owner of the mine's proceeds and largest investor is responsible if pollution occurs. FIN02

14614 [The Co-Leads should] Require that the PolyMet EIS include mentions of Glencore as the largest shareholder of PolyMet stock, the largest investor in the PolyMet NorthMet project, and as the owner of the first five years of NorthMet's minerals due to an off-take agreement with PolyMet. PD23

14615 [The Co-Leads should] Include Glencore in the financial assurance section of the document as a potentially responsible party, in case the financial assurance required of PolyMet proves to be inadequate. FIN02

14616 [The Co-Leads should] Require that any permit to mine for PolyMet include Glencore, due to their status as largest investor and owner of the minerals produced by the mine. PER02

**Sender Name (Submission ID)**    James Hanske (11272)

800 This mine would significantly degrade the water quality of the boundary waters lakes and lakes in the surrounding area. WR111

801 It is our job as Minnesotan citizens to protect arguably the most precious natural resource in Minnesota which is our lakes and more specifically the boundary waters. It would be an outright greed driven crime for SNF lands to be exchanged to a mining company. SO02

8356 The EIS should state how the mine's production will be transported to customers. Whether by rail, ship, truck, or pipeline, the method and route of shipment is important as shipping corridors may be greatly impacted by an increase and concentration of shipping traffic along the corridors to be used. PD37

**Sender Name (Submission ID)**    James Hilgemann (39166)

12268 The sulfide mining is yet another example of the root-hog-or-die mentality behind the smoke-and-mirrors of this country's resources/energy conundrum.I think it's time to leave the 19th century mindset behind. This is the 21st century! It's time to evolve. SO02

**Sender Name (Submission ID)**    James J Drost (58091)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> James J Drost (58091)		
19960	Poly-Met hopes that by overdramatizing a few positives, namely jobs and the economy, the many flaws and omissions in this document will be missed by the many review boards...This document has been studied and been found to be misleading, missing information, and fails to speak to many issues including health. It is not an acceptable document on which to ba8e public trust for the future of Minnesota's people.	GT01, SO01
20015	This project will deeply and adversely impact the lands of several Native American bands in the area... They want the land that was returned to them by treaty, because it is sacred to them. This land is their "green grass of home", and yet this company wants to destroy it forevermore by polluting it with toxic waste water.	CR01
<b>Sender Name (Submission ID)</b> James King (39802)		
14266	I am keenly aware of the potential devastation and resultant economic and quality of life issues that can result from mining abuses. I truly believe that the PolyMet project has long term negative impact for Minnesota.	SO01
<b>Sender Name (Submission ID)</b> James Korthals (57348)		
18393	We are thoroughly convinced that through the collaborative efforts of all of the agencies and PolyMet that the EIS has brought forth everything that will be of benefit and/or detriment to the environment.	NEPA16
18395	we firmly believe that PolyMet is a responsible mining company and they will be taking care of the environment for a very long time to come.	FIN16
<b>Sender Name (Submission ID)</b> james koschak (43565)		
9385	Many even refer to the Mine Site as being a "brown field". Wrong again. The PolyMet NorthMet Mine would be in our lands of the Superior National Forest in the middle of one of the most valuable wetlands in all of northern Minnesota, the 100 Mile Swamp.	WET19
9388	PolyMet would result in the largest destruction of wetlands in the history of our state. PolyMet needs 6,650.2 acres of land that, we the people of Minnesota, own in the Superior National Forest, with some 913 acres being of very high quality, irreplaceable wetlands in the St. Louis River watershed...This wetland area has been named an Area of High Biodiversity Significance by the Minnesota Biological Survey, and the U.S. EPA has stated that it is likely an Aquatic Resource of National Importance because of the high level of biodiversity.	VEG02
9390	[The open pit mine would cause] utter destruction of Minnesota's largest tract of high-quality wetlands with more than 4,000 acres of wildlife habitat degraded, including two square miles of critical habitat for the Lynx and important habitat for our dwindling moose population.	WI02
9397	How does the USFS think that the creation of a land exchange that goes directly against the 1911 Week's Act will serve the Public Interest?	LAN02
9417	Will the proposed benefits of the projected mining operations significantly outweigh the risks and harms to the environment, to population health and the economy? There is no comprehensive analysis in this SDEIS that incorporates short-term, moderate-term, long-term and very long-term (hundreds of years) estimates of costs and benefits.	SO01
9428	[James Skurla's "The Economic Impact of Ferrous and Non-Ferrous Mining"] is seriously flawed [and not intended to be a specific cost/benefit analysis for this project]. And, for it to be reflective of the basis for the fabricated "need" for sulfide mining in northern Minnesota is unconscionable. The model used fails to address numerous factors...	SO04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	james koschak (43565)	
9493	Failure to raise this issue of past history of AMD drainage in the SDEIS raises serious questions about the commitment of PolyMet, the MPCA, and other responsible agencies for protecting our environment and health both during and after mining operations. [Regulatory agencies have allowed mining companies in] northeastern Minnesota to operate without being in compliance with environmental regulations and standards; to have variances from water quality standards; and/or be in violation of permits designed to prevent aquatic toxicity.	PER06
9495	There is no Financial Assurance plan provided. This is an integral part of the EIS proposal; yet, lead agencies do not currently require it until after the EIS is approved. No public comment period for the public to weigh in on this crucial piece of the PolyMet NorthMet Sulfide Mine Proposal.	FIN13
9502	“Adaptive Management Techniques”... is an interesting new terminology used throughout the SDEIS, but one that is most evasive... The SDEIS provides no factual assurance or details (only vague references and the need for “adaptive management techniques”) on the impacts to water quality, wildlife or human health if the treatment system fails or if there is a breakdown, which is inevitable....There are reasonable foreseeable problems that may arise in this project that would adversely impact waste water treatment and tailings management which are not reviewed.	PD01, WR130
9515	Lead agencies need to restore the comment period before proceeding further with the review process. The SDEIS says that PolyMet estimates initial closure costs of up to \$200 million and annual maintenance costs of \$6 million which are far lower than estimates from the Grand Portage Band of Ojibway that calculated that at the onset the financial assurances should be \$90.5 billion, at a minimum... Public comment would help inform the issues [and clarify discrepancies]... Why is there no public comment period in place for financial assurances?	NEPA07
14086	The PolyMet North Met Mine proposal SDEIS is filled with flawed data, inaccurate information, omissions of pertinent information and is overwhelming complex by design. It is inappropriately long at 2,169 pages, confusing to read, with many leading and unsubstantiated statements... Lack of evidence-based explanations for key conclusions is problematic.	NEPA07
14087	there are no reasons given why other alternatives that could reduce pollution and impacts on wetlands were not analyzed.	ALT13
14088	Details of models used to project pollutant estimates are often lacking and the basic assumptions and data inputs for models inadequate.	AIR07
14089	PolyMet’s proposed mine is not on the Iron Range.PolyMet’s SDEIS states:“The NorthMet Project area, including the Mine Site, Plant Site, and connecting infrastructure, would be in St. Louis County, Minnesota, and situated at the eastern end of the Mesabi Iron Range.”... the NorthMet Mine site has been misrepresented as being on the Iron Range, instead on in the Superior National Forest in the disseminated copper, nickel, sulfide bearing fractured rock of the Duluth Complex.	PD31
14092	in exchange for this irreplaceable wetland... We, the people of Minnesota, will receive five non-contiguous pieces of land in Cook, Lake, and St. Louis Counties. These lands are simply a fraction of the value of the lands we would be virtually giving away to PolyMet Corporation for their Mine Site.	LAN03
14094	Why doesn’t the SDEIS include a Cost/Benefit Analysis or Cumulative Effects Analysis for the total cumulative impact area of not only the Lake Superior Watershed, but also the Rainy River Watershed?	CU01, SO07
14097	The SDEIS does not indicate whether wages paid to mine employees will stay in Minnesota or whether they will primarily be transient employees, such as those in North Dakota. What fraction of wages paid to mine employees will stay in Minnesota?	SO06
14098	The SDEIS does not investigate the loss of jobs when the price of copper declines and mining is less profitable, but it does state that job loss is inevitable: “Mining-related employment is volatile and fluctuates from year to year due to the market price of commodities being extracted.” SDEIS, 4-325---4-326. What will be the cost of unemployment benefits, health care, and other social services?	SO06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	james koschak (43565)	
14099	[The SDEIS does not indicate]... What will be the cost of increased crime rates, and other societal costs associated with volatility in employment? What is the cost of social upheaval to nearby communities?	SO06
14100	[The SDEIS does not indicate]... What will be the cost for public infrastructure?	SO04
14104	The [Skurla] model used to calculate the alleged economic benefits doesn't take into account the costs of degradation to the environment [including loss of clean air and water, wilderness lands, and wetlands]. Short-term; moderate-term and long-term (into perpetuity)?	SO04
14105	[The Skurla model referenced in the SDEIS does not indicate]... What will be the costs of displacement of other economic activity, incompatible with mining?	SO04
14106	[The Skurla model referenced in the SDEIS does not indicate]... What will be the impacts and cost on tribal rights to hunt, fish, and gather under the 1854 Treaty?	CR01
14107	[The Skurla model referenced in the SDEIS does not indicate]... What would be the cost to the tourism industry for loss of business due to sulfide mining and its incompatibility with the recreational industry that needs clean air, clean water, and an intact wilderness for enjoyment of visitors to the area?	SO02
14108	[The Skurla model referenced in the SDEIS does not indicate]... What would be the cost of lost recreational opportunities on wilderness lands?	SO04
14110	[The Skurla model referenced in the SDEIS does not indicate]... What will be the cost of depressed real estate values for landowners due to mining? ... What will be the done to offset the loss of real estate value for landowners due to mining?	SO03
14111	[The Skurla model referenced in the SDEIS does not indicate]... What will be the cost of the unpredictable influx and outflow of mine employees?	SO04
14112	[The Skurla model referenced in the SDEIS does not indicate]... What would be the cost of perpetual clean-up that the public would be required to bear when the financial assurances go bust?	FIN05
14114	How does the USFS think the destruction of some 913 acres of prime wetlands and thousands of acres of Superior National Forest will serve the Public Interest?	LAN01
14115	How does the USFS think that replacing a Lake District, with the potential to be inclusive of the Boundary Waters Canoe Area, with a Mining District to be in the Public Interest?	LU01
14116	How does the USFS think that benefiting a multinational sulfide mining company through the removal of strip mining protections will serve the Public Interest?	NEPA04
14117	How does the USFS think that setting precedence for ease of land exchange with foreign mining companies to eliminate the "conflict" between the mineral and surface estates will serve the Public Interest?	NEPA04
14118	Sulfide mines are among the most toxic and worst polluting mines in the entire world. (Dartmouth, 2010, 2012; A Mining Truth, 2012; Qu 2012)	REF01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	james koschak (43565)	
14119	Historically, everywhere on the Earth where this type of mining has occurred, heavy metal pollution and acid mine drainage is a result. Nowhere in the SDEIS was there any acknowledgement of this fact. Nor was there any data substantiating that the proposed PolyMet Mining Corporation's North Met mining project would be unique in preventing what history tells us happens at each and every sulfide mine site, and will occur at the PolyMet site.	PD26, WR023
14120	How will this venture in Minnesota's water rich environment be done in such a unique manner, as to guarantee no pollution to our waters?	WR070, WR130, WR195
14125	PolyMet's proposed mine plan will pollute the Boundary Waters Canoe Area Wilderness.	WILD02
14126	How can it be in the Public Interest to accept this SDEIS's proposal of ongoing toxic pollution to our water rich environment, or to accept the agencies present and foreseeable continued lack of enforcement of regulations and standards as related to the mining industry?	PER06
14127	There is little, if any, information in the SDEIS that provides for contingency planning [if something goes wrong].	PD22
14130	Why is there no plan in the SDEIS for a 500-year storm, and other such disasters and/or accidents?	PD22
14132	Why are the same valid reasons to involve the public with comments related to the EIS not also critical to the public's involvement and comments for the 'permit to mine' process? This is illogical and raises more questions as to the validity, fairness, transparency, and credibility of the entire decision- making process.	PER01
14134	The SDEIS provides no credible information about the cost of monitoring, maintaining, and replacing equipment needed to treat polluted water for 500 years or more. No details are revealed about the nature of guarantees of a financial assurance scheme that would remain viable for 500 years or more...	FIN01, FIN05, FIN11
14136	The SDEIS admits that water pollution will last up to 500 years, or basically, into perpetuity, yet the financial assurance section is an exercise in generalities. Actual cost of water treatment, monitoring, maintenance, repair, and reclamation is unknowable.	FIN01, FIN05, FIN11
15983	there are no reasons given why other alternatives that could reduce pollution and impacts on wetlands were not analyzed. Why is that?	ALT13
15984	The PolyMet North Met Mine proposal SDEIS is filled with flawed data, inaccurate information, omissions of pertinent information and is overwhelming complex by design. It is inappropriately long at 2,169 pages, confusing to read, with many leading and unsubstantiated statements.	NEPA07
15986	Details of models used to project pollutant estimates are often lacking and the basic assumptions and data inputs for models inadequate. Lack of evidence-based explanations for key conclusions is problematic.	PD29
15987	If permitted, PolyMet NorthMet Mine, along with Twin Metals Minnesota and other such toxic sulfide mines "waiting in the wings" would effectively turn our lakes recreational district into a mining district devoid of a beautiful wilderness landscape, solitude, wildlife, including the iconic moose, clean water, clean air, and peace and quiet.	LU04
15988	It is quite evident as to why the NorthMet Mine site has been resoundingly misrepresented as being on the Iron Range, instead on in the Superior National Forest in the disseminated copper, nickel, sulfide bearing fractured rock of the Duluth Complex. It is easier to sell this "bag of goods" to the public when it is described as being on the Iron Range, which has been mined for over a century.	PD31
15990	Many even refer to the Mine Site as being a "brown field". Wrong again. The PolyMet NorthMet Mine would be in our lands of the Superior National Forest in the middle of one of the most valuable wetlands in all of northern Minnesota, the 100 Mile Swamp.	WET19

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	james koschak (43565)	
15991	If the PolyMet proposal is permitted, it would result in the largest destruction of wetlands in the history of our state. For it to happen, PolyMet needs 6,650.2 acres of land that, we the people of Minnesota, own in the Superior National Forest, with some 913 acres being of very high quality, irreplaceable wetlands in the St. Louis River watershed.	WET23
15992	This priceless wetland area has been named an Area of High Biodiversity Significance by the Minnesota Biological Survey, and the U.S. EPA has stated that it is likely an Aquatic Resource of National Importance because of the high level of biodiversity.	VEG02
15993	We, the people of Minnesota, will receive five non-contiguous pieces of land in Cook, Lake, and St. Louis Counties. These lands are simply a fraction of the value of the lands we would be virtually giving away to PolyMet Corporation for their Mine Site.	LAN03
15994	he 600-700 foot deep, open pit mine comes with a plan to remove more than 530 tons of ore and waste rock, causing utter destruction of Minnesota's largest tract of high-quality wetlands with more than 4,000 acres of wildlife habitat degraded, including two square miles of critical habitat for the Lynx and important habitat for our dwindling moose population.	WET23, WI01, WI02
16000	Why doesn't the SDEIS include a Cost/Benefit Analysis or Cumulative Effects Analysis for the total cumulative impact area of not only the Lake Superior Watershed, but also the Rainy River Watershed?	CU01, SO07
16001	By inaccurately placing PolyMet's NorthMet Mine on the Iron Range, the entire SDEIS is skewed. This is not even the same geological formation. The public has been basically lied to that this Mine Proposal is on the Iron Range.	PD31
16004	How does the USFS think the destruction of some 913 acres of prime wetlands and thousands of acres of Superior National Forest will serve the Public Interest?	LAN01
16005	How does the USFS think that replacing a Lake District, with the potential to be inclusive of the Boundary Waters Canoe Area, with a Mining District to be in the Public Interest?	LAN01
16006	How does the USFS think that the creation of a land exchange that goes directly against the 1911 Week's Act will serve the Public Interest?	LAN01
16007	How does the USFS think that benefiting a multinational sulfide mining company through the removal of strip mining protections will serve the Public Interest?	LAN01
16008	How does the USFS think that setting precedence for ease of land exchange with foreign mining companies to eliminate the "conflict" between the mineral and surface estates will serve the Public Interest?	LAN01
16009	Will the proposed benefits of the projected mining operations significantly outweigh the risks and harms to the environment, to population health and the economy? There is no comprehensive analysis in this SDEIS that incorporates short-term, moderate-term, long-term and very long-term (hundreds of years) estimates of costs and benefits. Why?	SO01
16011	there are only a total of 427 new mining jobs projected in the copper-nickel sector by 2016. And, most of the projected 1,000 temporary construction jobs will last less than two years. The indirect, or spin off jobs from the copper-nickel sector, which mining boosters have also touted as high-paying is false.	SO01
16012	These mining advocates ... have literally exaggerated the economic benefits of sulfide mining to the region and our state. ... with its limited economic benefits, [the project] would be too controversial for mining boosters to push upon the proponents of a healthy natural environment.	SO01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	james koschak (43565)	
16013	The SDEIS does not indicate whether wages paid to mine employees will stay in Minnesota or whether they will primarily be transient employees, such as those in North Dakota. What fraction of wages paid to mine employees will stay in Minnesota?	SO06
16014	The SDEIS does not investigate the loss of jobs when the price of copper declines and mining is less profitable, but it does state that job loss is inevitable: "Mining-related employment is volatile and fluctuates from year to year due to the market price of commodities being extracted." SDEIS, 4-325---4-326. What will be the cost of unemployment benefits, health care, and other social services?	SO04
16015	What will be the cost of increased crime rates, and other societal costs associated with volatility in employment? What is the cost of social upheaval to nearby communities?	SO04
16016	What will be the cost for public infrastructure?	SO04
16017	The model used to calculate the alleged economic benefits doesn't take into account the costs of degradation to the environment. Short-term; moderate-term and long-term (into perpetuity)? What will be the cost of the loss of our clean water? The loss of our clean air? The loss of our wilderness lands? The loss of the 100 mile swamp and our wetlands?	SO04
16018	What will be the costs of displacement of other economic activity, incompatible with mining?	SO04
16019	What will be the impacts and cost on tribal rights to hunt, fish, and gather under the 1854 Treaty?	CR01
16021	What would be the cost to the tourism industry for loss of business due to sulfide mining and its incompatibility with the recreational industry that needs clean air, clean water, and an intact wilderness for enjoyment of visitors to the area?	SO02
16022	What would be the cost of lost recreational opportunities on wilderness lands?	SO04
16023	What will be the cost of depressed real estate values for landowners due to mining? Presently, real estate values have plummeted for properties near exploratory drill sites. What will be the done to offset the loss of real estate value for landowners due to mining?	SO03
16024	What will be the cost of the unpredictable influx and outflow of mine employees?	SO04
16025	What would be the cost of perpetual clean-up that the public would be required to bear when the financial assurances go bust?	FIN01
16026	Do we want more of what the Iron Range presently is? Why don't our regional politicians work toward other sustainable industries to improve the economy of this area?	NEPA02
16027	Why did the clients for the Skurla study only request a Benefits Analysis of this Project?	SO04
16029	everywhere on the Earth where this type of mining has occurred, heavy metal pollution and acid mine drainage is a result. Nowhere in the SDEIS was there any acknowledgement of this fact. Nor was there any data substantiating that the proposed PolyMet Mining Corporation's North Met mining project would be unique in preventing what history tells us happens at each and every sulfide mine site, and will occur at the PolyMet site.	PD26
16030	How will this venture in Minnesota's water rich environment be done in such a unique manner, as to guarantee no pollution to our waters?	PD03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	james koschak (43565)	
16034	Dunka is closed, so why are there operational permits with variances given by the MPCA? Why is the MPCA giving Cliffs Natural Resources a permit to pollute?	PER06
16043	Dunka should be designated a Superfund Site. Furthermore, Langley Creek exits the 100 Mile Swamp and drains into Dunka River which flows into Birch Lake, and onward into the BWCA via the South Kawishiwi River. ...PolyMet’s proposed mine plan will pollute the Boundary Waters Canoe Area Wilderness.	WR024, WR080, WR081, WR111, WR175
16045	Why doesn’t the SDEIS, with modern technology and knowledge, address these two Minnesota sites which continue to have AMD runoff into our watersheds, threatening the health of our birds, our wildlife, our wells, and ultimately our human health? ... Failure to raise this issue of past history of AMD drainage in the SDEIS raises serious questions about the commitment of PolyMet, the MPCA, and other responsible agencies for protecting our environment and health both during and after mining operations.	PD01
16048	I have no confidence or reason to believe that our agencies will enforce our so-called strong environmental standards as related to the PolyMet project given their past history ... as well as allowing every taconite mine in northeastern Minnesota to operate without being in compliance with environmental regulations and standards; to have variances from water quality standards; and/or be in violation of permits designed to prevent aquatic toxicity.	PER06
16050	How can it be in the Public Interest to accept this SDEIS’s proposal of ongoing toxic pollution to our water rich environment, or to accept the agencies present and foreseeable continued lack of enforcement of regulations and standards as related to the mining industry?	PER06
16051	Minnesotans have the right to protections of these natural resources. ... How can a sulfide mine be permitted if it causes destruction of our natural resources?	NEPA02
16053	There is little, if any, information in the SDEIS that provides for contingency planning.	PD22
16056	“Adaptive Management Techniques”. ... It is a new way to frame: Let’s see how things go and experiment with what might work if we run into an “unforeseen circumstance”. This is not good enough for Minnesotans who treasure our clean waters and our 10,000 lakes. There are reasonable foreseeable problems that may arise in this project that would adversely impact waste water treatment and tailings management which are not reviewed. Daily operations are planned to treat some 6.2 million gallons of polluted water daily. Broken pipes, human error causing accidents, equipment malfunction, and severe weather related disasters.	PD22, WR130
16057	Why is there no plan in the SDEIS for a 500-year storm, and other such disasters and/or accidents?	PD22
16058	To be told by the agencies, and specifically by Jess Richards, “that emergency planning also will be included in the mine’s permitting” is irresponsible and inadequate, as there will be no opportunity for public comments at that step in the process.	PD22
16060	There is no Financial Assurance plan provided. This is an integral part of the EIS proposal; yet, lead agencies do not currently require it until after the EIS is approved. No public comment period for the public to weigh in on this crucial piece of the PolyMet NorthMet Sulfide Mine Proposal.	FIN13
16063	Why are the same valid reasons to involve the public with comments related to the EIS not also critical to the public’s involvement and comments for the ‘permit to mine’ process? ... This is illogical and raises more questions as to the validity, fairness, transparency, and credibility of the entire decision- making process.	PER01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> james koschak (43565)		
16064	The SDEIS provides no credible information about the cost of monitoring, maintaining, and replacing equipment needed to treat polluted water for 500 years or more. No details are revealed about the nature of guarantees of a financial assurance scheme that would remain viable for 500 years or more, yet it does acknowledge the possibility of events such as “unanticipated liabilities” and “failure or limitations on the ability of third parties to pay.” ...Actual cost of water treatment, monitoring, maintenance, repair, and reclamation is unknowable. How can the DNR and the Governor possible make an informed decision unless the gaps are filled and the public has the opportunity to review the project in its totality?	FIN05, FIN11, FIN13
16066	Lead agencies need to restore the comment period before proceeding further with the review process. The SDEIS says that PolyMet estimates initial closure costs of up to \$200 million and annual maintenance costs of \$6 million which are far lower than estimates from the Grand Portage Band of Ojibway that calculated that at the onset the financial assurances should be \$90.5 billion, at a minimum. The Band concluded that PolyMet’s numbers are vastly below the actual amounts required. Why are there such glaring discrepancies? Public comment would help inform the issues.	NEPA07
<b>Sender Name (Submission ID)</b> James Lynskey (40527)		
14311	We would like to be kept informed about NorthMet Mining Project. Our address is 41916 248th Place McGregor Min. 55760. Thank you. Jane Dietl and James Lynskey	RFI01
16307	Contaminating our ground water is a high price to pay for a relatively few local jobs.	WR115
16308	Also, we tax payers should not be the ones to pay for cleanup.	FIN10
<b>Sender Name (Submission ID)</b> james mccluskey (709)		
439	The DNR is not a very good steward of our natural resources and systematically is destroying our forests with... destruction of the ground itself with this purposed mining project.	VEG03
1619	As a Minnesotan and a person who loves our public lands, I think we should protect them at all costs and stop the progress of this mine. Think of our kids. lets not destroy another piece of this great land.	LU06
<b>Sender Name (Submission ID)</b> James Melander (57165)		
18698	Minnesota law required mined out areas to be left “maintenance free.” The EIS statement explains that the mined out area will required 500 years of maintenance and water treatment. It is obvious that we do not have the technology to do this project safely.	PER04
<b>Sender Name (Submission ID)</b> James Moran (6083)		
1062	...support PolyMet Mining and believe they will build and operate a mine that complies with all regulations and protects the environment.	PD28
<b>Sender Name (Submission ID)</b> James Nessa (54770)		
19282	the amount of water contaminated by sulfuric acid and dissolved metlas which will need to be cleaned under normal conditions has been grreatly underestimated	PD05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> James Nessa (54770)		
19285	There are no plans in the SDEIS for extreme rainfalls such as June 2012 when 10 inches fell in Duluth	PD22
19289	The plan proposes cleaning contaminants from our waters for 200 to 500 years. I know of no way to meaningfully calculate the cost of acid and heavy metal mitigation for those periods of time. I believe there have been no calculations made public so they could be evaluated.	FIN05
19291	I know of nothing to prevent the owners of the mine, who do not live in Minnesota, from closing it down and letting Polymet go into bankruptcy as was done by the original owners of Tulsequah Chief mine in Canada	PER02
19293	The current operating costs of water treatment for the Canadian [Tulsequah] mine are four times the estimates made by the new owners.. They are still not in compliance with their water treatment permits	PD26
19294	As a citizen of Minnesota and part owner of the natural resources, I feel the DNR should require that the sulfuric acid and other heavy metals must be separated from the runoff and groundwater and exported out of state.	GEN01
19303	The public deserves to see a complete document which includes full financial assumptions and calculations as well as proof it meets the state law [to leave the site] "clean and maintenance free"	FIN14
<b>Sender Name (Submission ID)</b> James Nygard (54509)		
18759	The current situation is not a national emergency with most if not all the profits going to an international company delivering copper to China. The long term legacy costs to the state and possibly the nation will be diminished pristine wilderness, degraded water lasting perhaps hundreds of years, human health and health expenses over short and long term intervals, recovery at the bust of the cycle with over extended schools, hospital, government infrastructure, roads and supporting businesses, homes with significantly reduced income to support.	SO06
18761	Human health concerns by exposure to metallic sulfides (Copper, Arsenic, Methyl Mercury, lead sulfuric acid) in drinking water, in food, by contact with contaminated soil. This concern is short and long term Examples of food may include mercury levels from fish, possibly arsenic from wild rice, etc.	HU03
18762	Wildlife health concerns including birds....	WI04
18763	Incidental failure of a liner or catastrophic event (tornado, flooding, explosion) causing major leakage over a large area. A small example may be a failure of a containment pond along the North shore of Lake Superior a number of years back.	PD11
18764	Impact on Wild Rice, fishing and hunting as related to treaties and culture with Native Americans.	CR01
18766	Impact of acid rain on forests and plants including not only the mining but also the massive amount of energy required to be provided by older coal fired electric utilities to support mining. Estimated by U of M to be 47 trillion BTU over 20 years. This information is not included in the study so far.	VEG06
18767	From an environmental perspective there have been no successful metal sulfide mine operations and closures without releases of toxic materials without significant releases of toxic materials to air, water and land. Wisconsin law denies approval of any metal sulfide mining permits until a successful, environmental mine operation has been demonstrated. All interlocking companies should be cosigning responsibility for clean up, remediation and restitution for all environmental damages and health related issues.	PER02, PER25

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> James Nygard (54509)		
18768	The US Forest Service and the Minnesota DNR have denied access or to supply information related to studies completed on the lands proposed to be swapped between POLYMET and the US Forest Service other than to say the work was done by contractors paid for by POLYMET. No explanation was given for not providing what should be public information.	NEPA14
18769	The amount of water used in the mining operation . sources of water (well, creek, lake), treatment of contaminated water (technique used), timing of treatment, where disposal would occur, if treatment is in more than one location or method specify all individually.	WR143, WR145
18770	Noise and traffic concerns for all living or traveling in the area. Does proposed mining operation run 24 hours a day ?	N01
<b>Sender Name (Submission ID)</b> James P. Bremer (36682)		
7674	If the project is approved, a fund should be created as the mining is completed to reverse any harm to the environment.	FIN08
<b>Sender Name (Submission ID)</b> James Poole (57241)		
17365	any mining company that is moved to Minnesota [ILLEGIBLE] should be faced to escrow any and all cleanup costs paying forward/or 500 years. This should be done in the forms of a 100 million dollar fund that advances by 10% each year starting with the first day of production. If they don't need to do any damage, then after 500 years the company gets the money.	FIN01, FIN05, FIN08
<b>Sender Name (Submission ID)</b> James R Bester (57203)		
17095	If this mine pollutes Birch Lake and the Kawishiwi River it flows right into the BWCA and up through Canada. If it pollutes the Cloquet and St. Louis River it flows into Lake Superior.	WR111
17096	If this mine pollutes Birch Lake and the Kawishiwi River it flows right into the BWCA and up through Canada. If it pollutes the Cloquet and St. Louis River it flows into Lake Superior. Has anyone thought to ask the citizens of Canada and the Great Lakes states what they think of this acid mining? Let's hear what their thoughts are.	CU06
<b>Sender Name (Submission ID)</b> James Rodriguez (44302)		
10329	Sulfide mining produces toxic waste that could irreversibly damage Minnesota's fragile lakes, rivers and natural resources.	WR115
<b>Sender Name (Submission ID)</b> James Rolfe (57150)		
16844	he long term consequences and the potential for irreversible damage far outweigh any short-term gain	SO01
<b>Sender Name (Submission ID)</b> James Schulzetenberg (36539)		
10021	Given the history of the indirect effects of mining on wetlands, PolyMet should be required to come up with wetlands replacement in advance for all likely wetlands losses.	WET01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	James Schulzetenberg (36539)	
13778	The SDEIS also states that an additional 7,350 acres or more of wetlands could be destroyed because of air and water pollution resulting from taking water from the mine site to the tailings pile and changing the water patterns at the existing old LTV tailings site. However, according to the SDEIS, PolyMet will only have to replace about 27 acres, not the full amount of 7,350 acres!	WET04
<b>Sender Name (Submission ID)</b>	James Seme (42561)	
2569	Is a junior mining company headquartered in VanCouver, Canada. They have never operated a mine before. Backed by the Swiss Company GLENCORE 20% and has Exclusive Agreement to sell the Mine Metals on the Global Market.	PD23
<b>Sender Name (Submission ID)</b>	James Stout (43053)	
17504	sulfide mining is a dirty activity. It's just inherent to the business. In everyoperation I am aware of, there is or has been significant environmental pollution. The negative impacts of sulfide mining on the quality of water, air, soil and plant life are exceptionally well documented in the literature.	VEG06
17505	The... risk in Minnesota will be to the flourishing recreation industry centered on the BWCA and Superior National Forest. The economic benefits of this use of our resource is guaranteed in perpetuity in contrast to proposed mining operations in that area. I believe strongly that mining is not the best use of our resources in N. Minnesota.	SO02
<b>Sender Name (Submission ID)</b>	James Thompson (52440)	
17033	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
<b>Sender Name (Submission ID)</b>	James Vigiotti (38983)	
17654	Hello. I would like to comment that a federal-level review should be done of the proposed PolyMet mine's SDEIS particularly regarding the incorrect maps as seen on <a href="http://www.bwcasulfidemining.org/mine-site-drainage-to-bwca/">http://www.bwcasulfidemining.org/mine-site-drainage-to-bwca/</a> .	WR080
<b>Sender Name (Submission ID)</b>	James W Larson (54867)	
19355	I have major concerns with long-term wastewater discharges from the mine site...The water residues from the Polymet mine could impact one of our largest freshwater systems in the world; Lake Superior and the Great Lakes.	WR111
19356	Due to well-documented climate changes, I have concerns with exceptionallocalized rainfall events (such as the Duluth 10 inch rain event of June 20, 2012) over whelming the proposed water treatment plants located both at the mine site and the processing plant. Past weather data on 50 and 100 year storms may no longer be reliable in predicting the probability and frequency of such weather events. Knowing the final discharge water into the St. Louis River Watershed will need to be treated into perpetuity, will capacity to do so adequately under extreme weather events be constructed into the treatment system?	WR077, WR180
<b>Sender Name (Submission ID)</b>	James Watson (18113)	
13477	we need jobs. We have so many of our young people that have left the area...There's no one with family that I can think of that is capable of supporting a family on \$10-an-hour wage. It looks like PolyMet is going to be one good payer of good wages and benefits. They already have a facility that is pretty much already built.	SO10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jami Halder (11557)		
2519	It is known that it will directly impact the moose habitat and that the MN moose is a species of concern. It has not been addressed in the EIS and has been an area of public concern since the first proposal.	WI01, WI02
18363	That's my concern...the polluted water spreading further than they are saying it is going to.	WR010, WR081
<b>Sender Name (Submission ID)</b> Jamie Bartzen (38038)		
13720	Please do not give approval to them, too much is unknown	GEN01
<b>Sender Name (Submission ID)</b> Jamison Tessneer (43744)		
11792	One concern that has not been addressed is the adequacy of Minnesota law to protect landowners that could potentially have their land polluted by sulfide mines. The Minnesota Environmental Rights Act exempts permitted projects like the Northmet project from private causes of action from landowners whose groundwater or surface water may become contaminated. Will causes of action under public/private nuisance laws give landowners adequate recourse if their property is damaged? Will causes of action couched in theories of negligence or trespass give landowners adequate recourse if their property is damaged?	PER35
15085	What if that land [contaminated by mining] is a resort or business and the owner loses business? What recourse will they have?	SO03
<b>Sender Name (Submission ID)</b> Jan Greenfield (43965)		
14937	The days of digging up the earth for quick-term gain should be OVER! There's NO CONTEST between a few short-term jobs & the 500-year-predicted clean-up schedule for Minnesota's blessed natural resources.	SO01
<b>Sender Name (Submission ID)</b> Jan Kaeter (43694)		
10938	PolyMet is only a shell company and will file bankruptcy as soon as the minerals are extracted, then it will be up to the tax payer to pay for the clean up costs. They say reverse osmosis is their plan to clean up the waste, they estimate it will cost 6 million dollars per year: If the clean up lasts 500 years we are looking at 3 billion and that is not including inflation, PolyMet must agree to put up 3 billion dollars + inflation up front to protect us the tax payers.	FIN01, FIN05, FIN08, FIN10
10942	I also do not agree with the wetland swaps the current wetland, draining wetland in one part of the state and digging a pothole in another does not replace a wetland and it's value to a watershed and the wildlife that depends on it.	WET05
10943	And speaking of wildlife our moose population has been stressed and been in decline in the last decade, we can ill afford to remove any more habitat from it's range.	WI01, WI02
10953	There is no way I can see that they can totally seal off the waste in our water rich environment when sulfide based mining in the drier western states have all ended up being environment disasters requiring us the tax payer to clean up the mess.	WR017, WR018, WR020, WR070
10958	The potential cost to Minnesota tax payers and the natural environment is just too high and the SDEIS doesn't address the problems adequately.	NEPA15
10959	From what I understand the Minnesota rule 6132.3200 requires all mines to be maintenance free upon closure, and PolyMet doesn't even come close to meeting that rule.	PER04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jan Karon (20031)		
1669	The length of time Polymet itself says the toxic waste will have to be monitored - 200-500 years, violates current Minnesota law requiring such waste to be permanently disposed of before an operation closes.	PD02
1670	Who will monitor the toxic waste when Polymet no longer exists? The State of Minnesota at taxpayer expense? Furthermore, how could Polymet possibly give financial assurance for such a long- term operation? The duration of the toxic waste is an amazingly difficult environmental threat.	FIN01
<b>Sender Name (Submission ID)</b> Jan Korby (34508)		
13249	Our water will be all that's left because of draught everywhere. Please please do not allow this until there's a more ecologically safe way to mine it.	WR195
<b>Sender Name (Submission ID)</b> Jan Saecker (7057)		
518	What we need is not more mining of copper and nickel, but more clean water preservation. Every life form requires water. There is no life form that requires copper or nickel mining.	WR195
<b>Sender Name (Submission ID)</b> Jan Swart (39537)		
13539	We have seen these promises from mining companies before. There is no way they can avoid damage to our pristine environment in the Lake Superior basin.	WR023
<b>Sender Name (Submission ID)</b> Jane A Dolter (54525)		
18727	PolyMet needs to be responsible for all clean-up operations—from day one of their operations to eternity plus.	FIN01
<b>Sender Name (Submission ID)</b> Jane Ament (18281)		
4114	My interpretation of this open-pit mining process is that sulfuric acid will then be introduced into the air. These airborne toxins will then travel whichever way the wind blows...This will pose tremendously hazardous health risks to all inhabitants and visitors to the Arrowhead region.	HU03
4115	...can the DNR/PolyMet unequivocally promise me that our drinking water (from underground aquifers) will remain completely safe?	WR041
4116	can the DNR/PolyMet unequivocally promise ...that our air quality (which also impacts our topography and surface water) will remain safe and not deteriorate if this mining goes forward?	AIR11
13980	...Each summer I feed approximately 250 hummingbirds who nest in and around my property... I equate these little birds to the canaries sent into mines in days of yore. They are environmental barometers. If they die from bad drinking water, so will we. It would translate into the loss of many species.	WI01
<b>Sender Name (Submission ID)</b> Jane Amundson (18292)		
12329	I believe that the mining company needs to prove that this process of cleanup will be safe and effective. They need to put the money upfront for the cleanup, so that we are not expecting that they can have the money for 500 years.	FIN01
<b>Sender Name (Submission ID)</b> Jane Armstrong (45106)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jane Armstrong (45106)		
7599	I have particular concerns about the unsubstantiated assumptions like the percent of seepage collection at the tailings basin.	WR018
16755	there has been insufficient time for adequate independent evaluation.	NEPA07
16756	I am very concerned about the potential impact of these threats on the BWCA.	WILD02
<b>Sender Name (Submission ID)</b> Jane Ball (4134)		
862	The gains are temporary; the damage is forever	SO01
865	PolyMet admits that water pollution by sulfuric acid and heavy metals will last for at least 500 years.	WR037, WR059, WR107
866	Annually, 11 million gallons of polluted seepage from the tailings basin will enter groundwater without being treated.	WR070, WR108
867	Annually, 5 million gallons of polluted seepage from the mine site will enter groundwater without being treated.	WR070, WR107
868	The computer model used by PolyMet may understate the actual pollution impact, because it has been shown to be inaccurate in representing current conditions for water quality around the mine site	WR049
<b>Sender Name (Submission ID)</b> Jane C (39896)		
6943	What financial assurance has been guaranteed for industrial accidents, such as a waste water line break, rail car derailment and waste spill. It is not possible to make a realistic financial guarantee reaching out 500 years	FIN03
6948	Much of the information I heard at the meetings was alarming, and if the copper/nickel mining project is allowed, our precious natural resources of clean water, specialized wetlands, habitats for aquatic species, wild rice and animals are in the path of destruction that cannot be undone.	VEG10, WR115
14283	It is not known what path the toxic seepage will take. Who and what will it affect.	HAZ01
14284	Holes in the models. Many of the questions asked of the MDNR at the hearing on February 11, 2014 received a response of “We don’t know” or “The model doesn’t account for that”. It is not enough to only require PolyMet to answer questions that they pose. The MDNR must think through this project and demand answers to every eventuality.	WR189
14285	Is there a safer way to mine? The hurry here is of financial nature only. ... If we wait for a safer mining practice to be developed, we could have our cake and eat it too - by getting the metals, and keeping clean water.	ALT16
14286	All the benefit analysis for jobs is based on a 20 year operation of the mine, but that is the maximum number of years of operation. There is nothing to say that the mine won’t shut down earlier. Would you be considering this proposal at all if the projected jobs were only for 5, 10 or 15 years?	SO02
14287	PolyMet sent Brad Moore, Executive Vice President to speak for the company at the financial assurance hearing. When asked simple questions about the company’s financial statement, Mr. Moore claimed he didn’t know about the financial statement...PolyMet hid from the questions, and offered no answers or assurances of their own.	FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jane C (39896)		
14288	Wetlands cannot be created to be the same diversity of conditions or organisms of the original wetland. A land swap is ill-advised, as the precious wetland cannot be recreated.	WET14
14289	The water models are flawed and in dispute. They need to be redone.	WR189
<b>Sender Name (Submission ID)</b> Jane Christensen (43068)		
15418	I disagree with how the current (Supplemental) Draft EIS disregards the concerns of the Fond du Lac and Grand Portage Tribal Governments, the 1854 Treaty Authority, and the Great Lakes Indian Fish and Wildlife Commission (the four formal representatives of tribal interests) relegating those concerns to Appendix C and responding to each concern as a MDO "Major Difference of Opinion."	SO04
15419	I also ask that the map/ boundaries of the One Hundred Mile Swamp be clarified.	PD38
<b>Sender Name (Submission ID)</b> Jane Clements (40994)		
7448	I am writing to express my concern over the North Met DEIS, particularly the lack of information concerning the monitoring of the effluent.	PD05
7452	Minnesota water is going to be more valuable than gold, copper and nickel.	WR195
7454	We have no assurance that this mining operation will contain their run off in safe and long term, non polluting ways.	PD01, WR017, WR018
<b>Sender Name (Submission ID)</b> Jane Eloise Whitledge (57151)		
16845	PolyMet should not be allowed to get their mine just because they've already spent millions of dollars	NEPA15
16850	PolyMet's - and the public's - short-sighted vision on profits overlook our long-term needs. Life cannot survive without water.	SO01
16851	We can live without gold, copper, nickel. We must look to recycling for our metal needs.	NEPA06
18696	Before the state approves any mining project - such as this sulfide mine proposed by PolyMet - it should be able to point to a mine somewhere in the world where its safety and maintenance-free closure are an example. It cannot.	PER35
18700	We can't afford to sell tomorrow for today. We have no right to sell our children's future. PolyMet is about to commit a crime against nature and humanity. They have admitted their mine will leave contaminated water for 500 years!	SO02
18702	This mine is unconstitutional. Minnesota law clearly states that a mine must be left maintenance-free when closed. PolyMet, meanwhile, says the water, after mining, will have to be treated for at least 200 years! How could anything be less "maintenance-free"?	PER04
18705	PolyMet has not clearly stated how they would great our waters to ensure drinkability, safety for fish, wild rice, etc. Or how they will keep treatment facilities in place for 200 years or more, or how they will [pay] for them.	WR128
18706	If this mine - God forbid - should be approved, it should not come without a strict "damage deposit" required of PolyMet, to insure that taxpayers will not be burdened with the (very likely - the admitted) clean-up, which will cost in the millions and millions of dollars over centuries!	FIN01, FIN10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jane Eloise Whitledge (57151)		
18708	If an individual caused our water supply to have to be treated for 200 years, polluting it willfully, we would call him a terrorist and imprison him. PolyMet will be doing exactly the same, and yet will be rewarded with enormous gain, at the public's expense and detriment to health.	SO02
18711	With clean water sources dwindling the world over, it is very foolish to destroy one of the last remaining large areas of unpolluted water. Scientists predict future wars will be fought over drinking water. Do we really want to destroy a commodity that will be – and I believe really is now – more valuable than gold.	SO02
<b>Sender Name (Submission ID)</b> Jane Gilbert-Howard (9615)		
1139	I do NOT believe the EIS addresses the long-term environment effects of this proposed copper/nickel mine.	NEPA09
1140	What a tragedy for PolyMet to put a mining operation so close to the BWCAW—the only remaining wilderness of its type on the planet—especially when the forecast for “handling contaminated water” is estimated to be 200-500 years—OMG how can the permitting agencies even consider such an insult to the environment.	WILD02
<b>Sender Name (Submission ID)</b> Jane H Kulas (54805)		
18160	I don't believe that [PolyMet] will capture the contaminated water (a day rarely goes by that we don't hear about a leakage or spill...).	WR018, WR019
18161	The idea of filtering this water for 200-500 years is insane!	WR195
18162	Allowing PolyMet to destroy 900 acres of wetlands is... insane! The idea of "creating" new, replacement wetlands is just plain stupid!	WET24
<b>Sender Name (Submission ID)</b> jane johnson (39232)		
5455	I do not believe that they will ever be able to prove that there will not be pollution of the waters that are so important to this area.	WR195
5457	Jobs are important but cannot take precedence over preserving our clean water resources!	SO01
5458	There are so many endangered species in this area. So many times in the past we have allowed industry to take priority over preservation. This time lets make a different decision - lets learn from the past.	VEG01
<b>Sender Name (Submission ID)</b> Jane Koschak (42544)		
2555	...the copper and nickel deposits, which are proposed to be mined, are located within the Duluth Complex, which is not on the Iron Range.	PD31
2561	Heavy metal leaching is one of the greatest environmental liabilities associated with mining,...How is the SDEIS going to address this environmental liability?	PD01
2562	Metals, such as manganese at the tailings pile...arsenic at the tailing pile...arsenic in Colby Lake drinking water...How is the SDEIS going to prevent this dire situation to our waters from occurring; to preventing human health risks of cancer and other diseases and ailments?	HU01, WR123, WR130
2563	Under the Minnesota Environmental Policy Act 116D.04 Subd.6...The proposed PolyMet plan will seriously degrade the quality of our environment. How will the SDEIS address this?	AIR11

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Jane Koschak (42544)	
2564	This proposed sulfide mine project features requiring perpetual maintenance and monitoring, which is in violation of MN Rule 6132.3200, is absurd and unachievable, as it requires this to go on for centuries. It should not be allowed. How will the SDEIS attempt to counteract this?	FIN14
3110	One being that mining would totally occur on the Iron Range where typically iron and taconite mining have occurred. However, the copper and nickel deposits, which are proposed to be mined, are located within the Duluth Complex, which is not on the Iron Range.	PD27, PD31
3120	Birch Lake would be negatively impacted by this mine plan....There are resorts, house boat businesses, campgrounds, cabins and homes dotting the shoreline of Birch Lake. There are vast areas of forest, wildlife habitat, treaty-protected resources within the 1854 ceded territory and cultural sites...	LU06
3122	Most, if not all, will be impacted and permanently degraded by noise pollution and air pollution from the proposed sulfide mine.	N01
3127	Perception of noise, air, water pollution and degradation of the wilderness land in the minds of the travelers will negatively impact their decision to recreate in the Arrowhead region of Minnesota; therefore, economic loss for tourism.	SO02
3129	Figure 5.2-8.2 of the SDEIS illustrates air blast contours from the blasting at the mine site. This documentation is flawed and inaccurate. It does not take into account impacts to residents that do live on Birch Lake near the proposed mine site, to recreational sites to the Birch Lake pine forest just outside of Babbitt with biking and hiking trails, and to the 14 federal camp sites on Birch Lake	N02
3130	Wind blown dust particles containing sulfite compounds that are emitted from mining and beneficiation activities could contaminate wetlands, lakes, and streams near the project site and could cause harm to the species of concern that have been found in this area and to animals that depend on these foods or these plants for foods....These wind blown dust particles could be hazardous to human health of those living in the region of the proposed NorthMet. How is the SDEIS going to address this concern?	VEG07, WI04
3132	Under the Weeks Act, open-pit mining is not allowed on federal land. But instead of rejecting this proposed mine the United States Forest Service is proposing a land exchange so that their consideration of the surface land is eliminated. These lands and these waters that are proposed to be exchanged to PolyMet by the USFS belong to all the citizens of this country. This is wrong. This is our land, our wetlands, our water. This should not be allowed. Why is the Weeks Act not being enforced?	LAN02
3133	Heavy metal leaching is one of the greatest environmental liabilities associated with mining, especially in pristine environments like the project mine site that have economically and ecologically available natural resources....Metal, such as manganese, at the tailings pile will have 15 times more manganese per liter than the limit set by the Minnesota Department of Health to prevent brain damage in infants, children, and adults. There will be an increase of arsenic at the tailings pile by up to 417 percent. An increase in arsenic in Colby Lake drinking water by 38.5 percent, which would increase the risk of cancer for Hoyt Lake residents above the level of concern in Minnesota's cancer risk rule.	HU05
3139	Perpetual treatment. Minnesota rule 6132.3200 does not allow perpetual treatment. ...A, the PolyMet SDEIS states that long-term -- meaning greater than 500 years at plant site and greater than 200 years at the mine site -- treatment of wastewater is needed, which means the site will not be maintenance free at closure....B, 526 acres of lands covered by more than 167 million tons of waste rock would be covered by a plastic sheet and surrounded by a system that would supposedly by collect contaminated seepage. All would require monitoring and maintenance constantly for hundreds of years to fix leaks, repair perforations, and remove deep rooted plants....C, a mining pit lake would require pumping to prevent the toxic brew of acid and heavy metals from spilling into the nearby Partridge River and the tailings basin pond would require pumping to prevent spillage into the tributary of the Embarrass River....And finally D, the polluted water collection system, which includes miles of pipes, would require monitoring and maintenance for centuries	PER04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Jane Koschak (42544)	
3142	This SDEIS proposal is not in the public's best interest. It is inadequate, contains falsehoods, and omissions related to moose, mercury, and other concerns...What is the reason that important concerns related to moose and their habitat and mercury as related to aquatic species and human health were not fully addressed in the SDEIS?	WI01
6836	Most if not all, will be impacted and permanently degraded by noise pollution and air pollution from the proposed sulfide mine. I have 1500+ resort guests each season, and when they boat, fish, canoe, kayak, picnic, and swim on Birch Lake, they do so with the expectation of listening to the loons and watching eagles, fishing in peaceful coves, and picnicking on islands studded with pine trees and a canopy of clean air. Instead, with this plan, my guests, and most who live and recreate on Birch Lake, will be receptors for mine noise and air pollution. [Figure 5.2-8.2] does not take into account impacts to residents that DO live on Birch Lake near the proposed mine site, to recreational sites, to the Birch Lake Pine Forest, just outside of Babbitt, with biking and hiking trails, and the 14 federal campsites on Birch Lake...no mention of the privately owned recreational tourism businesses based on Birch Lake.	N01
6838	Perception of noise, air, water pollution and degradation of the wilderness lands in the minds of the traveler will negatively impact their decision to recreate in the Arrowhead region of Minnesota	SO02
6840	Figure 5.2-8.2 of the SDEIS illustrates air blast contours from the blasting at the mine site. This documentation is flawed and inaccurate. It does not take into account impacts to residents that DO live on Birch Lake near the proposed mine site, to recreational sites, to the Birch Lake Pine Forest, just outside of Babbitt, with biking and hiking trails, and the 14 federal campsites on Birch Lake. It is important to remember, that noise and air pollution have no barriers, not matter how many charts and tables may be drawn up to state otherwise. Why was documentation related to the aforementioned items not included in the SDEIS?	N02
6841	Wind-blown dust particles containing sulfate compounds that are emitted from mining and beneficiation activities could contaminate wetlands, lakes, and streams near the project site and could cause harm to the Species of Concern that have been found in this area and to animals that depend on these plants for food. These wind-blown dust particles could be hazardous to human health of those living in the region of the proposed NorthMet Mine.	AIR10, HU03, WET24, WI01, WI04
6843	This Environmental Rights Act [MN Environmental Rights Act 116B.01] gives its citizens the right to protection of our land, our water, our air and our natural resources. How can this proposed mine plan move forward when it will degrade and destroy air, water, land and other natural resources within our state?	PER35
6847	In return for this possible land exchange ...with the tradeoff of destroying the forested land that belongs to us, perpetual water pollution, and increased human health risks, including increased neurological damage to our children from mercury pollution.	GEN03
6848	There will be an increase of arsenic at the tailing pile by up to 417%; and increase in arsenic in Colby Lake drinking water by 38.5%, which would increase the risk of cancer for Hoyt Lakes residents above the level of concern in MN's cancer risk rule.	HU05
9035	This SDEIS fails to adequately address the human risks of exposure via air, water, soil, skin contact, and food consumption, to increased emissions of highly toxic chemicals and metals including: iron, copper, arsenic, mercury, lead, cadmium, chromium, cobalt, zinc, manganese, aluminum, thallium, asbestos like fibers, radon, fine particulate matter; silica, sulfate, diesel exhaust, among others, which acting singly or in combination with synergistic effects have been shown to cause disease, death and impaired quality of life in humans.	HU01
9043	There are no data regarding the toxicity of toxic pollutants for vulnerable citizens, including the unborn, children, the aged, those with chronic diseases, the immunosuppressed individuals, all of whom will likely be exposed to PolyMet pollutants.	HU01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Jane Koschak (42544)	
9045	Fine particle air pollution increases morbidity and mortality and reduction of such pollution improves life expectancy...It is the cumulative effects of air pollutants and toxic chemicals in water, soil, and food, predict the likelihood of human disease. I found no estimates of such cumulative effects in the SDEIS.	AIR07
9048	The heavy metals arsenic, nickel-chromium and other toxicants such as fine particles, silica, and diesel exhaust among others cause lung and other cancers in workers and the general population...[T]o what extent will the PolyMet mining add to this chemical burden and risks to health?	HU04
9943	PolyMet would also destroy thousands of acres of very high-quality, irreplaceable wetlands, (the largest destruction of wetlands in the state of Minnesota).	WET23
9944	To create the Mine Site, our public lands within the Superior National Forest of Minnesota would be traded by the U.S. Forest Service for lands in Cook, St. Louis, and Lake County that are non-contiguous with a fraction of the value of the lands we, the people, would be virtually giving away to PolyMet Corporation for their Mine Site.	LAN03, LAN06
9945	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR111, WR115
11637	PolyMet's water treatment system provides no details for what happens in the event of catastrophic accidents or failure of the system to operate over the 500+ years during which polluted water is being discharged... Scientific studies suggest that this facility must be designed for the 500-year storm, because the 1980's 500-year storm is now occurring almost as often as the 100-year storm.	PD22
11644	[The SDEIS has a] Lack of information regarding mercury contamination of fish and ultimately methymercury in humans. This area, home to 6 operating taconite mines, already has an alarming concentration of mercury and other pollutants far exceeding the regulatory standards.	MERC02
11646	[The SDEIS has a] Lack of alternatives to the probable permanent destruction of some 8,263 acres of wetlands, with some 913 acres being of very high quality irreplaceable wetlands in the St. Louis River watershed.	ALT13, ALT23
11653	This 600-700 foot deep, open pit mine comes with a plan to remove more than 530 million tons of ore and waster rock, causing utter destruction of MN largest tract of high-quality wetlands with more than 4,000 acres of wildlife habitat degraded, including two square miles of critical habitat for the Lynx and an important habitat for our dwindling moose population. Mines presently in operation have created a significant barrier for wildlife migration with only 18 narrow corridors within the Range to move from north to south.	WI02, WI03
11656	The proposed PolyMet mine site is located in the Superior National Forest. Under the Weeks Act, open pit mining is not allowed on federal land.	NEPA04
11659	Metals, such as manganese at the tailings pile that will have 15 times more manganese per liter than the limit set by the Minnesota Department of Health to prevent brain damage in infants, children and adults. There will be an increase of arsenic at the tailing pile by up to 417%; and increase in arsenic in Colby Lake drinking water by 38.5%, which would increase the risk of cancer for Hoyt Lakes residents above the level of concern in MN's cancer risk rule.	HU12, WR043, WR204
11661	Mining cannot be permitted if it causes destruction of our natural resources. PolyMet's proposed sulfide mine threatens Minnesota's clean water and public health. Under MN Environmental Policy Act 116D.04 Subd.6: "Economic considerations alone shall not justify such conduct." This proposal is not in the Public Interest.	GEN03
11662	I endorse the "No Action Alternative" because I believe that this DEIS is a testament to falsehoods, omissions, and claims without fact.	NEPA15

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Jane Koschak (42544)	
11663	Nothing in this DEIS demonstrates that we need the copper or the jobs.	PER35
13227	Furthermore there is no mention of the privately owned recreational tourism businesses based on Birch Lake for decades. There are three resorts, a canoe outfitter, two houseboat businesses, and one campground that will be sound and air receptors of the proposed NorthMet Mine. It only mentions the federal camp area.	SO02
13365	Not only will there be 500 years... of water pollution from sulfuric acid and heavy metals...not all of the polluted water will be captured for treatment. Some 11 million gallons, annually, of polluted seepage from the tailings basin will enter our groundwater without treatment. And, further some 5 million gallons of polluted seepage from the mine site will enter groundwater without being treated.	WR070, WR117, WR156
13368	PolyMet's water treatment system provides no details for what happens in the event of catastrophic accidents or failure ...The SDEIS provides no assurance or details on the impacts to water quality, wildlife or human health if the treatment system fails or if there is a breakdown, which is inevitable.	PD22, PD29
13369	Lack of information regarding mercury contamination of fish and ultimately methylmercury in humans. This area, home to 6 operating taconite mines, already has an alarming concentration of mercury and other pollutants far exceeding the regulatory standards.	MERC02, MERC03
13372	There is no plan to compensate for thousands of acres of wetlands that would be "indirectly" harmed. These wetlands have been named an Area of High Biodiversity Significance by the Minnesota Biological Survey, and the U.S. EPA has stated that it is likely an Aquatic resource of National Importance ...In return for this area that includes black spruce, cedar, and tamarack wetland, and also includes a lake, the Yelp Creek, and the Partridge River flowing through it, we the people" will receive five non-contiguous pieces of land in Cook, Lake, and St. Louis Counties. These lands are simply a fraction of the value of the lands we would be virtually giving away to PolyMet Corporation for their Mine Site.	WET19
13374	Mines presently in operation have created a significant barrier for wildlife migration with only 18 narrow corridors within the Range to move from north to south. PM would further degrade what is a marginal, but important corridor for our wildlife.	WI03
13375	The proposed PolyMet mine site is located in the Superior National Forest. Under the Weeks Act, open pit mining is not allowed on federal land. These lands and these waters that are proposed to be exchanged to PolyMet by the USFS belong to all the citizens of this country. But instead of rejecting this proposed mine, the USFS is proposing a land exchange so that their consideration of the surface land is eliminated.	LAN02
13376	MN Environmental Rights Act 116B.01 states: "The legislature finds and declares that each person is entitled by right to the protection, preservation, and enhancement of air, water, land, and other natural resources located within the state and that each person has the responsibility to contribute to the protection, preservation, and enhancement thereof. In return for this possible land exchange with the federal government, PM plans to destroy the land that belongs to the Public, and forevermore, into perpetuity, pollute our waters with mercury, acid mine drainage and other heavy metals.	PER35
13378	Metals, such as manganese at the tailings pile that will have 15 times more manganese per liter than the limit set by the Minnesota Department of Health to prevent brain damage in infants, children and adults. There will be an increase of arsenic at the tailing pile by up to 417%; and increase in arsenic in Colby Lake drinking water by 38.5%, which would increase the risk of cancer for Hoyt Lakes residents above the level of concern in MN's cancer risk rule.	HU05
13379	Under MN Environmental Policy Act 116D.04 Subd.6: "Economic considerations alone shall not justify such conduct." Nothing in this DEIS demonstrates that we need the copper or the jobs.	PER35

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Jane Koschak (42544)	
15017	If approved, this first-ever sulfide mine in Minnesota would open the door for multiple sulfide mining companies, "waiting in the wings", that would endanger the Boundary Waters Canoe Area Wilderness (BWCAW).	CU04
15018	We have two tourism recreational businesses (resort and canoe outfitting). We are threatened by the advent of turning our Lake District into a Mining District....from turning a vibrant Wilderness area into a dead and barren Minefield of toxic destruction, not only to the landscape, but to our most valuable resource....our WATER.	SO02
15562	There are no data presented to indicate how the PolyMet proposed sulfide mine operation will prevent leaching into the environment and intake into the body of heavy metals which are among the key promoters of oxidative stress in humans that promote metal-induced and metal enhanced formation of free radicals in the body with resulting toxicity and carcinogenicity.	HU01
15569	Reproductive pathology: is caused by metals and toxic chemicals commonly found in sulfide mining operations. Such chemicals cause damage or death to human embryos and fetuses, neurological damage in the fetal and neonate brain; recently researchers at Harvard have discovered the association of air pollution with Autism Spectrum Disorder (ASD) in a major study (>320 cases and >22,000 control subjects) of the perinatal exposure to metals lead, manganese, mercury, and diesel exhaust and other pollutants. There is no mention in the SDEIS of potential risks to pregnant women regarding reproductive pathology.	HU01
15606	The proposed mine site is in the Superior National Forest. Birch Lake is part of the Duluth Complex area and is located in the Superior National Forest. Birch Lake would be negatively impacted by this mine plan.	WILD02
15607	Under the Weeks Act, open pit mining is not allowed on federal land. But instead of rejecting this proposed mine, the USFS is proposing a land exchange so that their consideration of the surface land is eliminated. These lands and these waters that are proposed to be exchanged to PolyMet by the USFS belong to all the citizens of this country.	LAN02
15608	Under the Minnesota Environmental Policy Act 116D.04 Subd.6: "No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit and natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land, and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct." The proposed PolyMet plan will seriously degrade the quality of our environment. How will the SDEIS address this?	PER35
15609	Minnesota Rule 6132.3200 does not allow perpetual treatment: "to receive a permit to mine, the permittee must be able to close the mine in such a way that it is stable, free of hazards, minimizes hydrologic impact and release of substances, and is maintenance free."	PER04
15610	The PolyMet SDEIS states that "long-term" (>500 years at the Plant Site and >200 years at the Mine Site) treatment of wastewater is needed which means the site will not be maintenance free at closure.	PER04
15611	526 acres of land, covered by more than 167 million tons of waste rock, would be covered by a plastic sheet and surrounded by a system that would supposedly collect contaminated seepage. All would require monitoring and maintenance constantly for hundreds of years to fix leaks, repair perforations, and remove deep-rooted plants.	PD01
15612	A mining pit "lake" would require pumping to prevent the toxic brew of acid and heavy metals from spilling into the nearby Partridge River, and a tailings basin pond would require pumping to prevent spillage into the tributaries of the Embarrass River. The polluted water collection system, which includes miles of pipes, would require monitoring and maintenance for centuries.	WR037, WR131

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jane Koschak (42544)		
15613	This SDEIS proposal is not in the public's best interest. It is inadequate, contains falsehoods, and omissions related to moose, mercury and other concerns. The word "moose" does not appear at all in the SDEIS cumulative effects analysis. What is the reason that important concerns related to moose and their habitat and mercury, as related to aquatic species and human health, were not fully addressed in the SDEIS?	WI01, WI02, WI08
16087	Not only will there be 500 years, or basically into perpetuity, of water pollution from sulfuric acid and heavy metals, as indicated by PMet's own DEIS, but in addition, not all of the polluted water will be captured for treatment... What would be the long-term effects of the release of this untreated water to your health, your neighbor's health, and the health of the land and nearby lake?	HU01, WR064, WR107, WR108, WR177
16088	PolyMet's computer model may actually understate the actual pollution impacts, because it has been shown to be inaccurate in representing current conditions for water quality by the mine site.	WR049
16089	The SDEIS provides no assurance or details on the impacts to water quality, wildlife or human health if the [water] treatment system fails or if there is a breakdown, which is inevitable.	WI07, WI13, WR129, WR141
16138	There is no plan to compensate for thousands of acres of wetlands that would be "indirectly" harmed. These are not lands on the Iron Range, as the SDEIS falsely states. These are lands in the Superior National Forest...the public's land... These wetlands have been named an Area of High Biodiversity Significance by the Minnesota Biological Survey, and the U.S. EPA has stated that it is likely an Aquatic resource of National Importance because of the high level of biodiversity.	WET01
16140	In return for this area that includes black spruce, cedar, and tamarack wetland, and also includes a lake, the Yelp Creek, and the Partridge River flowing through it, "we the people" will receive five non-contiguous pieces of land in Cook, Lake, and St. Louis Counties. These lands are simply a fraction of the value of the lands we would be virtually giving away to PolyMet Corporation for their Mine Site.	LAN03
16175	These lands and these waters that are proposed to be exchanged to PolyMet by the USFS belong to all the citizens of this country. But instead of rejecting this proposed mine, the USFS is proposing a land exchange so that their consideration of the surface land is eliminated. This is wrong. This is public land.	LAN04
<b>Sender Name (Submission ID)</b> Jane L Soukup (54834)		
18679	Yes, we need jobs, but we shouldn't be forced to accept the contamination of our lakes & streams. Our groundwater is precious -- once it is poisoned we will never get it back.	WR115
18683	500 years of site management & clean-up? ...That's a tremendous price to pay for the capital gains of a few wealthy (& in some cases, foreign) investors.	SO02
<b>Sender Name (Submission ID)</b> jane piegras (47417)		
17584	We have read the proposal carefully yet are left with the genuine concern that long term environmental protection especially for the area waters, can not be assured. Our fears are substantiated by the fact that there is no existing sulfide mine, even the most contemporary such as Flambeau in Wisconsin, which have not ultimately caused leakage of toxic metals and sulfuric acid into the water table and surrounding earth.	PD01
17585	Northeastern Minnesota's precious natural resources must not be jeopardized for future generations by approval of mining which is based on unproven technology, false premises and self serving promises from an industry with such a terrible track record worldwide.	SO02
<b>Sender Name (Submission ID)</b> Jane Sullivan (43215)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jane Sullivan (43215)		
15833	The long lasting impact on our beautiful state's environment is NOT worth 300 jobs. ... Rather, lets create jobs by putting those folks to work on our infrastructure...roads; bridges etc.	SO01
15834	I do not trust that they will be able to keep the percentages of sulfite low enough to be dismissed. ... These are people's lives we are talking about destroying, along with our ground water, if this project is allowed to continue.	WR149
<b>Sender Name (Submission ID)</b> Jane Whiteledge (11640)		
3331	that once the mining is done the water will have to be treated for at least 200 years.	PD03
6993	All we need to know ... is the Polymet itself has said: that once the mining is done the water will have to be treated for at least 200 years. The lack of common sense, and stupidity of it all is breathtaking, that we'd even consider fouling our own water forever.	HU01, WR195
<b>Sender Name (Submission ID)</b> Jane Whitledge (11640)		
3331	that once the mining is done the water will have to be treated for at least 200 years.	PD03
6993	All we need to know ... is the Polymet itself has said: that once the mining is done the water will have to be treated for at least 200 years. The lack of common sense, and stupidity of it all is breathtaking, that we'd even consider fouling our own water forever.	WR115, WR195
13039	All we need to know about this mining proposal is what PolyMet itself has said, that once the mining is done the water will have to be treated for at least 200 years.	WR035
<b>Sender Name (Submission ID)</b> Janet Anderson (35147)		
13047	PolyMet's destructive and polluting open pit sulfide mine is NOT good for the public health.	HU03
<b>Sender Name (Submission ID)</b> Janet Brown (38837)		
5076	As an avid user of the BWCA and the beautiful natural areas of Northern Minnesota, I urge you to reject the proposed PolyMet mine.	WILD02
5079	Too often we see they companies claim that they have taken every precaution, only to find out later that they have cut every corner and we are left with millions or billions in clean up efforts that not only become the burden of the taxpayer, but leave us with a destroyed ecosystem.	SO02
<b>Sender Name (Submission ID)</b> Janet C Hubbell (54795)		
18086	I object to the proposed mine because it...does not have safeguards in place for expected mishap [and] does not leave the site clean & maintenance free	PER04
18087	I object to the proposed mine because it does not keep Minnesota's water safe & clean	WR107, WR108
18094	I object to the proposed mine because it ...does not provide financial assurance to MN taxpayers about how much the treatment of polluted [sic] will cost them -- what their liability is.	FIN01, FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Janet Diehl (40386)		
9393	Water is needed for Life & is therefore of far more value than all the ore that can be mined.	WR195
<b>Sender Name (Submission ID)</b> Janet Draper (42821)		
7284	I am writing to ask you to reject the PolyMet NorthMet SDEIS because it is inadequate. The calculations are optimistic and do not accurately predict the environmental impacts of the proposed open-pit sulfide mine. The model used to predict impacts to water quality is flawed. And there are no contingency plans for expected accidents at such mines such as pipeline spills, accidental releases, failures of water collection and treatment systems and tailings basin failure....500 years of pollution – or more – are. Our water is one of our most important resources, and this will become truer as water shortages increase worldwide. We in this part of Minnesota will go from being in an enviable position to being in an unenviable one.	WR115, WR128, WR129, WR130, WR131, WR132
7284	The model used to predict impacts to water quality is flawed. And there are no contingency plans for expected accidents at such mines such as pipeline spills, accidental releases, failures of water collection and treatment systems and tailings basin failure....500 years of pollution – or more – are. Our water is one of our most important resources, and this will become even truer as water shortages increase worldwide.	WR115, WR128, WR129, WR130, WR131, WR132
7286	The necessity for at least 500 years of active water treatment should be a red flag to us all. Who will be conducting the treatment and where will the money come from? The revised plan does not give details about financial assurance – about how much Polymet will pay and whether that will be enough. The state of Minnesota and its taxpayers will undoubtedly pay the bill.	FIN01, FIN05
7286	The necessity for at least 500 years of active water treatment should be a red flag to us all. Who will be conducting the treatment and where will the money come from? The revised plan does not give details about financial assurance – about how much Polymet will pay and whether that will be enough.	FIN01
<b>Sender Name (Submission ID)</b> Janet Frigstad (16888)		
11018	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Janet Johnson (44768)		
7269	500+ years of treating polluted water... should be enough to open our eyes and say no. Water is our most precious resource and in a world where potable water is scarce and disappearing why are we endangering one of our last great supplies of clean water (this watershed goes into Lake Superior)	WR115
<b>Sender Name (Submission ID)</b> Janet Magree (11590)		
2248	The threat of bio accumulation from release of sulfides to air and water, and the drying of wetlands, will add to the incidence of neurotoxicity that causes damage to the brains of developing fetuses.	MERC03
2249	Adding more permanent waste rock to the existing, already leaking LTV pile, will exacerbate bio accumulation of mercury for future generations.	MERC20
<b>Sender Name (Submission ID)</b> Janet Neville (3745)		
9657	It must be proven absolutely safe before any permits are release[d].	PER06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Janet Neville (3745)		
17005	t is our responsibility to see that it is protected. This means practicing the "precautionary principle" when making decisions that can irrevocably damage our planet. It must be proven beyond a shadow of a doubt that sulfide mining will not degrade the environment or tip the ecological balance.	SO01
<b>Sender Name (Submission ID)</b> Janet Petri (43102)		
11074	... I am very concerned about the effects of the sulfide runoff into the watershed. Northern Minnesota and the BWCA are VERY watery environments.	WR111
11076	The reverse osmosis water filtration seems pretty cool, but it has not been tested on this scale. What happens when (not if) there is a 10 inch rain on the site? Who will be maintaining the reverse osmosis system in 500 years - 480 years after the mine shuts down? A giant barrier is needed, down to bedrock, to keep the untreated, polluted water from flowing down stream. In 500 years, who will be maintaining this barrier? For that manner, who will be maintaining and funding the barrier in 50 years, or 100?	PD03, WR023, WR128, WR143, WR144
11077	Why not require an underground mine, which would present fewer risks to water resources? ... The company says that copper prices are not high enough to make underground mining pay. However, I think it is worth it to wait to mine until it can be done right. The copper will still be there.	ALT01, ALT06
11079	What happens when the former LTV Steel's tailings basin, which was developed in the 1950's, fails after sulfide-bearing tailings are dumped on top of it?	PD10
11082	I have seen places polluted with mine tailings. I don't want northern minnesota to go that route. Clean water is essential for life.	WR195
<b>Sender Name (Submission ID)</b> Janet Spring (9987)		
324	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever	NEPA09, WR115
497	...PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion.	WR003, WR115
500	Neither the SDEIS nor the sulfide mine project are based on good science.	NEPA09
503	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
504	The SDEIS must be redone to calculate whether PolyMet's seepage would violate water quality standards using the closest location where groundwater seeps would reach wetlands. Both the mine site and tailings site have high pollution levels in surficial groundwater seeps and have wetlands far closer to pollution sources than the "evaluation locations" used in the SDEIS.	WR058, WR064, WR177
513	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump.	WR010, WR061, WR099, WR168

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Janet Spring (9987)	
514	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards	WR189, WR202
551	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR195
915	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish	WR189
917	[The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on]... Human health	SO04
918	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR017
1400	Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
1401	The SDEIS must be redone, because its predictions are completely unreliable and its methods conceal, rather than analyze environmental impacts. Here are a few critical failures:•The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.•The SDEIS must be redone to calculate whether PolyMet's seepage would violate water quality standards using the closest location where groundwater seeps would reach wetlands. Both the mine site and tailings site have high pollution levels in surficial groundwater seeps and have wetlands far closer to pollution sources than the "evaluation locations" used in the SDEIS.•The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.•The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet's own reports for the Canada stock exchange reveal significant faults and fractures.The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR003, WR010, WR018, WR019, WR064, WR111, WR177, WR189
<b>Sender Name (Submission ID)</b>	Janet Werner (43687)	
11911	the people trying to convince us to put the mine in Minnesota are already including in their proposal the funds for a clean up. If that isn't an indictment of the situation, I don't know what is.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Janet Werner (43687)		
11912	Installing a copper-nickel mine near Hoyt Lakes and Babbitt in northeastern Minnesota will result in environmental damage to the clean water in the area. If it doesn't happen in our lifetimes, it will eventually.	WR111
<b>Sender Name (Submission ID)</b> janets8340@comcast.net (16159)		
1460	Please, please pay attention to what happened in Spain [aquifer]. You know very well that this will also happen here despite their assurances that it will not.	WR023
2027	The wetlands that will be completely wiped out at these proposed mining sites will most definitely affect our wildlife and birds.	WET24, WI02
<b>Sender Name (Submission ID)</b> Janice Conklin (10045)		
330	Nowhere on the planet has copper-nickle mining been done without destroying water resources.	WR023
1403	Do we actually believe that the mining company has detailed plans for clean up when pollution occurs. And do we actually believe that effective mitigation measures will remain in place for 200 to 500 years.	PD05
<b>Sender Name (Submission ID)</b> Janice Greenfield (14759)		
13789	The Superior National Forest was established for the purposeful protection of our fabulous Minnesota natural resources.	WILD02
13791	what will be the long-term damage to our water resources & who would pay for this damage?!	FIN01
<b>Sender Name (Submission ID)</b> Janice M Koski (57175)		
18676	If one looks at the mine and all the drawbacks, ruined lakes and rivers forever and short-term jobs. If what this (the mine) has ruined will never come back, and if we step back and really look at our planet and see what's happening we should be ashamed.	SO02
<b>Sender Name (Submission ID)</b> Janice Myers (58130)		
19916	I am concerned that copper and sulfide nickel mining in MN will cause...Polluted water...Loss of wetlands...Imports on wildlife...Climate change – more global warming...Loss of clean [ILLEGIBLE] in Boundary WatersLet us	GEN03
19969	Spend our time and work on alternative energy like solar and wind...Give construction workers jobs in environmentally friendly job	ALT16
<b>Sender Name (Submission ID)</b> Janice Peterson (45781)		
16352	We should not even have a discussion about messing around with the polymet mining proposals: a stable water future is not a sure thing. It is a mistake to think that mining should trump our Minnesota jewels: clear and pure water.	WR195
<b>Sender Name (Submission ID)</b> Jaquelyn Blanco (54175)		
16397	It will pollute our water were gonna have sulfuric acid are PH will go down	WR001

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jaquelyn Blanco (54175)		
16398	[It will] kill the animals and insect that actually help the envirement.	WI01
16399	The world don't need more that's why they invented recycling for we can' do no more harm in the world I gess people just don't get that we have to protect what grows in the world for that we can still be living there so many other places were you can get copper, metal and other minerals pleas don't destroy our home the land of 10 thousand lakes we need our lakes and we need animals.	NEPA15
<b>Sender Name (Submission ID)</b> Jared Yakk (54539)		
19173	Please keep the BWCA as is. 20 years of job creation isn't worth the hundreds of years of disaster this will cause. Use your mind not your wallet.	SO01
<b>Sender Name (Submission ID)</b> Jason Carr (43562)		
8164	I encourage the MN DNR to carefully balance the short term benefits and localized economic impact of this mine against its potential long term harm to our state's citizens and brand.	SO01
<b>Sender Name (Submission ID)</b> Jason Etten (10295)		
482	Do we really have a concept of the length of time and the cost involved in this cleanup effort? This could be two to three times longer than this state has been in existence.	PD25
483	Those who argue about the positives this will bring to the economy are looking only at the short term. Twenty years of mine work doesn't even provide jobs for a career for a miner. That would be half a career and then we would be back to start with an environmental disaster waiting to happen. This is not a sustainable or wise way to provide jobs and a future for those living in the Iron Range.	SO01
<b>Sender Name (Submission ID)</b> Jason Finley (5925)		
1927	Mining creates the possibility to poison a Minnesota water supply.	WR195
1928	Therefore, mining permits should not be issued.	PER35
<b>Sender Name (Submission ID)</b> Jason Fisher (7617)		
804	I am conviced that PolyMet's NorthMet project can be done in an environmentally friendly manner. The SDEIS is a detailed, independent review; federal, state and tribal agencies shaped the development of the draft EIS, which was written by an independent, third party. I believe this is a sound process. The environmental review process has been lengthy and thorough; the supplemental draft EIS addresses potential environmental impacts and how to mitigate them. The public can be confident that the draft EIS offers regulators the information they need to issue permits so that PolyMet can operate in a way that protects natural resources.	NEPA16
<b>Sender Name (Submission ID)</b> Jason George (18180)		
13398	I believe that we can have these jobs and protect the environment.... I keep hearing about 300 jobs. Nobody is talking about 2 million construction hours, which is what it's going to take to build this project. ...we're talking about a stadium-sized project in Northern Minnesota that is desperate for jobs.	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jason Loos (21962)		
3299	They have sufficiently addressed the environmental concerns and will provide much needed jobs to the area.	SO10
<b>Sender Name (Submission ID)</b> Jason Rabuck (28860)		
10946	We need to be thinking about recycling, re-using, and reclaiming metals- not sulfide mining	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Jason Wall (37232)		
16110	The preservation of clean water and wilderness will provide a greater economic stimulus to the state and local areas than mining.	SO02
16296	To keep us healthy we need clean air and water, sulfide mining does not meet that goal.	AIR11
16299	My worry is that if we dig a large, likely toxic, hole in our Minnesota backyard and a large multinational firm quickly opens a new copper mine in Chile or Mexico and provides copper at a fraction of the price; our mine is shuttered until the next perceived demand and then what?	FIN08
<b>Sender Name (Submission ID)</b> Jay & Mary B Newcomb (42707)		
8594	PolyMet's own documents show that the boost to the area's economy from 20 years of mining would be followed by hundreds of years of environmental problems. All other sulfide mines have resulted in contamination of ground water sources.	WR195
8595	This is a threat, especially in Northern Minnesota, to ground water, wetlands, rivers and lakes.	WR111, WR115
8596	This mine would harm wild rice, fishing and drinking water. It is not worth the risk.	VEG04, VEG06, WR113, WR156
<b>Sender Name (Submission ID)</b> Jay Dregni (19978)		
1618	Considering the weight of the information and evidence to date, I do not think mining for copper and nickel should go forward. Actually the water in our state is truly our treasure - the land of sky blue water.	WR195
1656	I am not in favor of copper nickel mining in Minnesota at this time due to lack of environmentally successful mining of this sort, plus the years it might take to rectify the water pollution and environment of our state.	WR195
14846	the following ideas and conditions must be considered: A. A trust fund with at least two parts; first, a multimillion dollar initial contribution (non refundable), and second an annual addition to the trust fund equal to ten percent of some measure such as revenue, tons of copper/nickel removed, etc.	FIN05, FIN08
14847	the following ideas and conditions must be considered:...Sixty percent of the jobs at all levels to be held by Minnesotans, and 90% by US citizens.	SO06
14850	the following ideas and conditions must be considered:... E. No special tax breaks to be provided.	SO04
<b>Sender Name (Submission ID)</b> Jay Eidem (39468)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jay Eidem (39468)		
7224	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR060, WR181, WR182, WR195
13277	My wife and I were seriously considering purchasing land close to the mine site, we will not invest in a future in this area if short-sighted proposals like this threaten the water quality and the environment.	SO02
13278	Hundreds of jobs you say, this pales in comparison to the number of jobs that BWCA, Lake superior and its tributaries provide in the form of recreation. Poison the water and poison the future investment in the region.	SO01
13279	When Polymet closes their doors, files for bankruptcy and leaves their tailing ponds and rock piles Minnesotans will pay to clean it up	FIN01
13419	Hundreds of jobs you say, this pales in comparison to the number of jobs that BWCA, Lake superior and its tributaries provide in the form of recreation. Poison the water and poison the future investment in the region.	SO02
13420	Who will clean up the mess? When Polymet closes their doors, files for bankruptcy and leaves their tailing ponds and rock piles Minnesotans will pay to clean it up.	FIN01
13422	This issue seriously concerns me and my family's future use of the Arrowhead region for recreation...his is the only draw to the northshore and we as Minnesotans should feverishly protect our remaining natural resources.	LU06
16964	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
16965	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
<b>Sender Name (Submission ID)</b> Jay Haapala (9562)		
200	Evidence that the plan misrepresents the boundary of wetlands and tributaries flowing into the BWCA and other protected lands needs to be investigated.	WET19, WR080, WR081
201	The plan should include analysis of underlying bedrock and it's ability to protect groundwater from pollution.	WR007, WR008, WR010, WR061
202	Potential conflict with the 1854 Treaty with the Chippewa regarding pollution of reservation lands needs to be investigated.	CR01
203	Long term pollution mitigation and financial accountability plans are not sufficient.	FIN05, FIN11
973	The Land Exchange proposal is not an equal or fair tradeoff.	LAN03
<b>Sender Name (Submission ID)</b> Jay Lehman (18099)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jay Lehman (18099)		
3226	I would like to ask the DNR to make an official statement as to whether or not this claim of 500 years of required waste water treatment post-closure in the SDEIS is in the SDEIS or is it not?	PD03
3227	PolyMet, before mining begins, funds must be set aside to cover the entire cost of the closure and the reclamation. The Minnesota DNR determines the amount to be set aside and the company does not get the funds back until all closure and reclamation is complete.	FIN07
13465	With that being said, I believe we have to put our trust in the experienced scientists and engineers of the lead agencies to determine if this mining project can be done safely. If this project can meet the environmental and financial requirements, then we must allow PolyMet to move forward with this project. Not doing so would be an injustice to the people in Minnesota, especially here on the Iron Range, as we have one of the world's largest deposits of strategic metals.	SO10
<b>Sender Name (Submission ID)</b> Jay Newcomb (18362)		
2541	And they [Ojibwe] have brought up three bands, the Net Lake, Grand Portage, and Fond du Lac band have drawn up a list of 18 disputes that they have with the EIS. ... And what I would suggest is that before this mine is considered further or goes forward we need to listen to the people who know how to treat this land the right way and sustainably and resolve all these 18 issues	NEPA12
7233	The very fact that thousands of people have commented on the SDEIS shows how inadequate it is.	NEPA09
7236	We fear for our environment and for the future of our clean water.	WR195
11368	We fear for our environment and for the future of our clean water.	WR195
13265	The very fact that thousands of people have commented on the SDEIS shows how inadequate it is.	NEPA15
<b>Sender Name (Submission ID)</b> Jay Rich (37880)		
16372	I'm sending my views on opening the boundary waters for more destructive mining: please don't. They are a unique natural resource that can't be replaced or cleaned.	WR195
<b>Sender Name (Submission ID)</b> Jay Strachota (39959)		
7792	I do not believe that PolyMet can safeguard Minnesota's ground water and protect it for 500 years.	WR035
7802	It is ... beyond belief that people exist who think they can calculate the environmental and financial risks and requirements for possibly 500 years...	FIN05, FIN10
11128	Further more I believe it should be a requirement that when a mining company finishes mining that the site should be cleaned up and left maintenance free. That's the only possible way taxpayers can be protected and even then PolyMet could default before the end of the mining. We can not strap this clean up burden on future generations who will gain nothing from the efforts after the site is mined.	FIN10
<b>Sender Name (Submission ID)</b> JAY STROHMAIER (11982)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> JAY STROHMAIER (11982)		
1644	..the proposed PolyMet mine represents a grossly sub-optimal trade-off from a risk/return perspective. I understand it could create 350-400 jobs for perhaps a 20 year period; maybe a few more jobs, possibly a few less; maybe a few more years, but perhaps a few less. Commodity prices are volatile and the economic and regulatory environment associated with mining profitability can change quickly and unexpectedly.	SO01
1645	what may our grandchildren and great, great grandchildren (and beyond) potentially be facing 100 or 200 or 500 years from now, when the lakes have been contaminated with sulfuric acid and no one even knows what a Walleye is because our lakes don't support any aquatic life anymore?	AQ08, WR195
1646	When well water could be tainted and unsafe for drinking	WR041
1647	And when the costs associated with the clean-up could overwhelm the ability of local communities (or even the state) to bear the financial burden.	FIN01
<b>Sender Name (Submission ID)</b> Jaymes G Hubbell (54796)		
18098	Toxic metals & sulfates into our environment + 500-year commitments of maintenance are ridiculously risky for any state to take on. We should not do this to our grandchildren.	GEN01
<b>Sender Name (Submission ID)</b> Jayne (47693)		
7936	If we have to put money a side for more then a month then it to harmful to all to move forward	FIN05
<b>Sender Name (Submission ID)</b> Jayne Fingerman Johnson (6451)		
1079	PolyMet would create polluted water requiring expensive treatment for 500 years after they stop mining, and millions of gallons of untreated, polluted water would seep from the site every year into groundwater and nearby rivers.	WR037
1081	PolyMet's plan fails to plan for contingencies like pipeline breakages and extreme weather events.	FIN05
1082	PolyMet's mine plan doesn't provide details about how to calculate an adequate damage deposit to protect taxpayers from the cost of 500 years of cleanup and maintenance.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Jayne O'Connor (54510)		
18758	If I see a toddler, I think of the 7th Generation....we own them better, a cleaner guardianship than we inherited. Please do not allow anymore mining in Minnesota.	SO02
<b>Sender Name (Submission ID)</b> Jean Beccone (20892)		
1860	The SDEIS is inadequate; it does not provide any reassurance that this mining will not result in irreparable harm to the watery environment in our Arrowhead.	WR115, WR130
1861	PolyMet's proposed mine threatens our clean water and public health.	HU03, WR195
<b>Sender Name (Submission ID)</b> Jean Bergerson (4716)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jean Bergerson (4716)		
1877	there is [not] yet a good method of [water, in particular sulfate] treatment that well not lead to long-term serious negative effects.	WR128, WR145
1878	I [do not] believe any amount of money held in escrow for reclamation well be enough to suffice for future needs. We are not sure what they well be nor do we know costs of treatment 150-200 years from now.	FIN01, FIN05
1880	[sedge/wet meadows, coniferous bogs, and open bogs] are of significant importance on their filtration and hydrologic values to the area in which they occur.	WET24
1881	Moose are quickly disappearing in NE MN. Wetlands provide a food source for moose and are an important habitat component.	WI01, WI02
1882	I request you deny Polymet permits to continue on with their project due to impacts on water quality, wetlands that are difficult to mitigate and replace and the impacts on water quality and animal habitat resulting from their destruction.	PER35, WET24, WR195
1955	in order to have water that meets release standards for sulfate levels treatment would need to take place anywhere from 200 years to perpetuity.	WR035
1956	It states in the wetland section 912.5 acres of wetlands would be directly affected and between 6,498 and 7,350 indirectly affected... these wetland types [sedge/wet meadows and both coniferous and open bogs] develop over 100s of years and the likelihood of mitigating them with like wetlands is unlikely.	WET24
<b>Sender Name (Submission ID)</b> Jean Christopherson (19079)		
15650	I'm writing to request that you increase the length of the comment period for the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (SDEIS) from 90 days to 180 days. Please listen to the community – there is too much at stake to rush this.	NEPA07
15652	Please... consider rescheduling the public meetings proposed for January 2014 so that they take place later in the comment period. At the very least, please provide an additional public meeting toward the end of the extended comment period in May 2014. PolyMet and the agencies have had more than seven years to put together the PolyMet SDEIS. Yet, you are expecting the public to read everything and be ready to speak up about the project after just a few weeks, just after the winter holidays. This isn't... reasonable.	NEPA10
15654	[More time to comment and to prepare for public meetings is needed because:] The SDEIS is too long. The SDEIS is 2,169 pages long. It is neither clear nor concise. In places, it is internally inconsistent. In others, it only makes sense after reading additional technical documents.	NEPA07
15655	[More time to comment and to prepare for public meetings is needed because:] The SDEIS is not written so that members of the public can understand it. The SDEIS is confusing and repeats the same information over and over without providing the basis for its conclusions. It's going to take a lot of work just to make sense of what it is saying.	NEPA07
15656	[More time to comment and to prepare for public meetings is needed because:] The SDEIS does not explain why other alternatives that could reduce pollution and impacts on wetlands weren't analyzed.	NEPA07
15657	[More time to comment and to prepare for public meetings is needed because:] No data is provided to support the level of financial assurance proposed.	NEPA07
15660	The SDEIS is often one-sided. Well-documented tribal "Major Differences of Opinion" call into question many of the main points in the SDEIS, like claims that mine pits, waste rock piles, and tailings heaps won't seep pollution; that mining won't dry out wetlands; and that mercury contamination of fish and other toxic chemicals won't increase.	MERC02, MERC20

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jean Christopherson (19079)		
15663	[More time to comment and to prepare for public meetings is needed because:] The SDEIS doesn't allow members of the public to find or check on the references claimed to support the SDEIS conclusions. The SDEIS has a long list of references, but they were not made available to the public. How can we tell if the conclusions in the SDEIS make sense?	NEPA07
15666	[More time to comment and to prepare for public meetings is needed because:] The SDEIS comment period and public meetings come at the worst possible time. Release of the SDEIS right before the winter holidays and scheduling public meetings in January (when bad weather is likely) seem designed to make it hard for us to both review the documents and to travel to hearings.	NEPA07
15671	Extending the SDEIS comment period to 180 days and setting public meetings later in the comment period would go a long way to reassure us that the PolyMet sulfide mine project will receive a fair evaluation and that opinions of Minnesota citizens, not just the interest of foreign corporations, will matter when the government makes its decisions.	NEPA07
<b>Sender Name (Submission ID)</b> Jean Greenwood (9616)		
1329	I understand treatment will be required at the mine for 200 years and at the plant site for 500 years. All this for a mine that lasts 20 years, creates few jobs, and puts our land, water, air, health at risk.	PD01, WR115
<b>Sender Name (Submission ID)</b> Jean Johnson (57174)		
18685	Minnesota has clean water and beautiful clean lakes. Why would we permit a company to ruin all our water. They say it will bring more jobs. We need more jobs, but we need clean water to survive. Any mining that will harm our water is not wanted in Minnesota.	SO02
<b>Sender Name (Submission ID)</b> Jean Oberle (43120)		
15875	I am strongly opposed to the Polymet mine project in the Babbitt/Hoyt Lakes area due to the long term environmental ramifications.	GEN01
<b>Sender Name (Submission ID)</b> Jean Watson (19789)		
15703	I believe that the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	WR035
15704	PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part of the Superior National Forest the largest designated Important Bird Area in Minnesota.	WI02
15705	sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream. Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons.	WI01, WI02, WI04
15724	four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Jeanette Curphy (19893)		
1497	For the few hundred jobs offered for this project, that would last approximately 20 years, the damage appears to outweigh the benefits.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jeanette Curphy (19893)		
14835	It bothers us that Polymet is not an American Company but a Canadian company. Do they really care about our environment?	PD23
14836	The history of copper/nickel mining companies is that they do their mining, file bankruptsy, and leave the citizens to pay for the clean up, and their is no known way to clean up sulphur material in the water.	PD01
<b>Sender Name (Submission ID)</b> Jeanette Trushsess (18247)		
13650	Even with the best technology and state-of-the-art methods for capturing sulfide, eventually, perhaps several generations from now, those chemicals will leach into the watershed and Lake Superior. The mining company is not going to take responsibility, even if it still exists as an entity 100 years from now. And even if it were to take responsibility, it would not be possible to reverse the damage.	PD01
13651	No amount of money would compensate the people relying on Lake Superior for their potable water. Fresh water is going to be a necessary condition for quality of life in Minnesota, long after the miners and the minerals have come and gone.	FIN05
<b>Sender Name (Submission ID)</b> Jeanine Allen (43706)		
15399	Minnesota has only been a State for 156 years, and to commit future generations to this amount of supervision, and resultant costs, is absolutely irresponsible. In addition, I have yet to find any such pollution control measures that actually work in the real world.	FIN01
15401	It has been noted in news articles that copper mining will expose and release into the environment sulfate, mercury, possibly asbestos-like particles, and other toxic metals into the water, and possible the air. ... To prevent such pollution from happening, we are told that extraordinary pollution control prevention measures must be implemented, and sustained, for a period of at least 500 years.This is absolutely mind-boggling to me that we would even consider approving a project that gives us 20 years of mining and jobs, in return for more than 500 years of State oversight and maintenance of the mine site.	PD01
15402	Minnesota is known world wide for our Minnesota grown wild rice. Native Americans have been harvesting wild rice for centuries, and will probably continue to do so, "if" we don't ruin the environment which is necessary for its continued survival. As far as I can tell, we have not fully determined the "safe" level sulfides in the water which will allow for the sustainability of our wild rice crop. I feel we should not endanger wild rice production in our State in return for 20 years of copper mining; it just doesn't make sense.	WR156
15403	We've been trying to reduce mercury levels in Minnesota waters for years. Every summer I hear reports that people should limit their fish intake to so many fish per week due to mercury contamination. And now, we're to consider increasing adding more mercury to Minnesota waters, in return for 20 years of copper mining. Once again, this doesn't make sense.	MERC02, MERC22
15404	I imagine people in Duluth and many other communities and individuals up and down the North Shore who obtained their water from Lake Superior had been subjected to [asbestos fiber] contamination [due to mining in the area] for years before it was discovered. I also imagine it will be years before the direct negative impact on public health this pollution has, and will, cause. For years I have wondered what will be the eventual impact this will have on my family. People should not have to worry about problems like this.	HU03
15405	Our government's, including the DNR, primary objective should be protecting Minnesotans and our environment, not catering to foreign corporations.	PER02
15406	I don't want to see the Minnesota environment getting ruined to provide 20 years of profits to a corporation and then get stuck with the cost of cleaning up the mess for the next 500 years; it just doesn't make sense.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jeanine Center (31247)		
14001	Lake Superior's waters were seriously contaminated by the taconite tailings that mining companies dumped into it. This pollution was a threat to both marine and human life until an international effort stopped the dumping. So why would we even consider authorizing a new and similarly dangerous threat to the Lake Superior and the beloved Boundary Waters Wilderness?	WILD02
<b>Sender Name (Submission ID)</b> Jeanne Ford (57219)		
17159	What are the plans for environmental responsibility (ie – keeping the surrounding land and water ways preserved and clean)?	PD24
<b>Sender Name (Submission ID)</b> Jeanne M Wesley (57182)		
18659	Minnesota's clean waters and wilderness areas have provided our state with ample economic benefits for decades, and they form the backbone of our healthful way of life that attracts people from around the world. These assets of ours will continue to serve us if we don't ruin them for short-term gain.	SO02
<b>Sender Name (Submission ID)</b> Jeanne Thoreson (39535)		
6294	I think it is absurd to embark on a mining operation that gives a few hundred workers 20 years of employment and [then] saddles the state with centuries of cleanup.	FIN10
6296	It is also absurd to risk the health of the Boundary Waters, which is Minnesota's greatest gem.	WILD02, WR111
13542	it is absurd to allow an out-of-state company to rape our land and carry the profits away.	SO06
<b>Sender Name (Submission ID)</b> Jeannie Rustad (10735)		
593	I also believe that by allowing sulfide mining to start up in order to provide mining jobs, we will ultimately destroy our tourist industry jobs in Northern Minnesota because of the damage caused by mining for copper. Polymet is at best a short sighted, short term fix for our state.	SO02
1489	I am strongly against allowing PolyMet or any sulfide mining in Minnesota because: I believe the toxic waste caused by this type of mining will cause irreparable harm to our environment.	WR195
<b>Sender Name (Submission ID)</b> Jeff (4563)		
1847	This [Project] is going to be a huge boon to the area, and the state, with the additional jobs and tax revenues.	SO10
1848	Minnesota has some of the toughest mine pollution laws in the country, and this is an area that has been mined for well over 100 years without it turning into a wasteland.	PER34
1938	The project will not pollute the boundary waters (not even the right watershed) and even the watersheds that it does lead to, are also safe because mining can be done safely.	WILD03
<b>Sender Name (Submission ID)</b> JEFF ANDERSON (43336)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> JEFF ANDERSON (43336)		
11378	The mining of these strategic and precious metals will generate significant economic activity, creating hundreds of jobs that can support families and sustain communities.	SO10
11380	Having grown up on the Iron Range, I know all too well that we need jobs for young people and copper-nickel mining will provide our young people with multiple opportunities for challenging and exciting careers.	SO10
11383	I trust the multiple State and Federal Agencies involved in preparing the document. Minnesotans trust the DNR to study copper-nickel mining and keep our communities safe. The environmental review process has been lengthy and thorough; the supplemental draft EIS addresses potential environmental impacts and how to mitigate them.	NEPA16
<b>Sender Name (Submission ID)</b> Jeff Backlund (39596)		
6352	I do not believe the mining industry at this time has an economically affordable way to treat tailings of this process. If they prepaid 100 years of treatment which is estimated at 5 million each year then I would say yes lets do it. But from a business standpoint how can any business profit and be able to support the economics of treating waste at this cost into the future.	FIN01
12924	I do not believe the mining industry at this time has an economically affordable way to treat tailings of this process. If they prepaid 100 years of treatment which is estimated at 5 million each year then I would say yes lets do it. But from a business standpoint how can any business profit and be able to support the economics of treating waste at this cost into the future.	FIN01
<b>Sender Name (Submission ID)</b> Jeff Busse (44068)		
7729	I feel strongly there is a lack of detail regarding the risk analysis in the document that would allow me to fully understand the consequences of the proposed action ... I would urge the agencies to conduct a more thorough, detailed, and complete risk analysis to be included in the EIS.	PD01
7732	I do not feel the question of financial assurance has been adequately addressed for post-closure, especially given the high likelihood that perpetual treatment is needed. There is absolutely no historical examples of mining in MN that suggests PolyMet will be able to provide the necessary monitoring and funding	FIN01
7735	PolyMet's mine plan doesn't provide details about how to calculate an adequate damage deposit to protect taxpayers from the cost of 500 years of cleanup and maintenance.	FIN05, FIN10
7736	The plan includes inadequate contingencies for disaster events like pipeline breakages and extreme weather events	PD22
<b>Sender Name (Submission ID)</b> Jeff Conrod (15264)		
400	It is absurd to jeopardize the safety of drinking water for 500+ years in order to get, at best, 20 years of jobs.	SO01, WR115
401	And who will pay for the cleanup if Polymet doesn't have the money to do so, as has happened so many times in the past with other mines? Why should we believe that Polymet can do it this time when nobody has before?	FIN01
13776	Are we willing to sacrifice our environment over the long-term in order to receive the short-term benefits from the mine?	SO01
<b>Sender Name (Submission ID)</b> jeff durfee (38127)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> jeff durfee (38127)		
8802	Because of the water rich environment, why not use under ground mining methods. This might help with the water run off problems.	ALT06
<b>Sender Name (Submission ID)</b> Jeff Evans (46072)		
10566	I am opposed to the plan to mine copper nickel in Northeastern Minnesota [because of the] lack of transparency on the financial assurance calculations. Not providing the assumptions or contingencies is short sighted. I realize this by law is to be part of the permitting process but the DNR and other agencies should've realize the lack of faith citizens would have in this process and provided that information.	FIN13
10570	I am opposed to the plan to mine copper nickel in Northeastern Minnesota [because of the] lack of a mercury/sulfate standard for wild rice. How can the state make a wise decision if the rules for sulfate standards haven't been decided on yet or updated?	HAZ01
10572	What are the health risks from this type of mining? Has it been studied?	HU01
10574	How much of the technology has been tested in the field rather in the laboratory? Reverse osmosis operates differently in a controlled environment of the lab.	PD32, WR143
10578	What is the cost to the state and local communities on the infrastructure? Crime will increase so will heavy loads on highways. Is this considered? How this project will be taxed has not been determined. Let's solve that problem first.	SO04
10580	What are the costs of 200 to 500 years of pollution compared to twenty years of a few jobs?	SO01
10583	Modeling should be revised. The new information on water flows indicate that the models are incorrect and need to be substantially revised. The state should make an informed decision with the best information possible, not a hurried political one.	WR003
<b>Sender Name (Submission ID)</b> Jeff Hanson (44301)		
11840	The Dunka Pit of Erie LTV Mining... is a prime example of the sulfate and acid mine drainage problems that can result from any type of mining where sulfide ores such as copper sulfide or iron sulfide (pyrite) are present. ... To this day seepage from this site is treated before being discharged into Birch Lake, and it still exceeds some contaminate limits.	PD01, WR023
11842	I am extremely well impressed by the level of concern and the depth of the review that has been conducted by the PolyMet SDEIS process. This is exactly the type of review that is needed to rationally anticipate and mitigate the environmental impacts that could happen.	NEPA16
11847	With reverse osmosis PolyMet should be able to meet the stringent standards for sulfate discharges. ... It is important that the PolyMet project proceeds with all the appropriate precautions to meet all standards, but also to continue the studies and research to learn about how we can do mining with the absolute minimum of impact on the natural environment.	PER34, WR190
11848	We can debate until we are blue in the face whether, or not, all of the data and technologies presented in the PolyMet SDEIS is all correct or valid. But we know that it was put together with the best minds and talents available today. We should consider this expert analysis and proceed in the least risk manner possible.	NEPA16
15015	I am further impressed and pleased that the MPCA through their water permits and the SDEIS process have required that PolyMet and Erie evaluate methods for the reduction of sulfates, sulfides and dissolved metals in mining impacted water discharges.	GEN02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Jeff Hanson (44301)	
15016	I believe that it is absolutely essential to proceed with the SDEIS process. It has been conducted seriously and in great depth. It mandates on-going monitoring and testing to learn the most and assure that it keeps on track. It is hard to imagine a better situation and scenario for learning and proving out how we can develop these types of mining in an environmental responsible manner.	PD28
<b>Sender Name (Submission ID)</b>	Jeff Heikkinen (38105)	
13712	A few hundred jobs and 20 years of work compared to 500 years of possible ecological impact doesn't make sense	SO01
<b>Sender Name (Submission ID)</b>	Jeff Iisakka (18333)	
13910	I'm very confident that with today's high technology, strict environmental regulations that the PolyMet mining facility will be highly successful and we'll be enjoying the fruits of their labor for many years.	SO10
<b>Sender Name (Submission ID)</b>	Jeff Lentsch (42150)	
6371	Due to the economic gain, and environmentally friendly procedures, mining in Minnesota should stay... So let us keep those good paying jobs here in Minnesota. There have been plenty of health impact study's done on the poor, and their not as healthy when compared to the wealthy. Wealth is the only thing we can invest in the technology that make these procedures more environmentally friendly.	SO10
<b>Sender Name (Submission ID)</b>	Jeff Mogush (38466)	
13764	If this were just about economic benefits, it would be difficult to argue against permitting Polymet's proposed mine. The fact that this process has never been done safely along with the need to treat the polluted water for 500 years, should make any thoughtful person skeptical. The fact that the SDEIS assumes that nothing will go wrong is not defensible. The risk to the abundant water in the area makes this project a poor choice for our State.	SO01, WR195
<b>Sender Name (Submission ID)</b>	Jeff Pearson (45063)	
7546	How can you PLAN to pollute a pristine area like this with 500 years of pollution?	PD01, WR195
7549	What company will be around in 500 years?	FIN01
16776	Don't do this to the BWCA....	WILD02
<b>Sender Name (Submission ID)</b>	Jeff Rupp (40743)	
14041	how can a company and the DNR be certain waste water won't find hidden cracks and fissures at the mine site and percolate to unexpected areas contaminating lakes or groundwater in unforeseen locations, making water treatment very difficult? Also, during the mining process and after how would they handle water treatment if for example they had another very intense prolonged rain event with record setting amounts of rain in short period of time like what occurred last summer??	WR010, WR011, WR057, WR180, WR193
14042	I want to mention that not all mining results in a economic boost for the surrounding communities!...most economic benefits occur mainly in the early stages of mine construction-- not as much during mine operation!!	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jeff Rupp (40743)		
14043	I am afraid if this type of mining is allowed here, it will open the door for the next mine planed just south of Ely Minnesota -- even bigger mistake!!	PER07
<b>Sender Name (Submission ID)</b> Jeff Scharlau (46027)		
10423	Nothing that comes out of that mine is as important as fresh water and the unspoiled beauty of the Superior National Forest. Cancel plans for the mine.	WILD02
<b>Sender Name (Submission ID)</b> Jeff Soderstrom (45165)		
8733	EIS makes clear that treatment of contaminated water will be perpetual (arbitrarily defined as 200 or 500 years)...EIS should state how the treatment mechanisms will be maintained for hundreds of years.	WR128, WR143, WR144, WR148
8736	Every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater and the environment without being treated. Mitigation plans for these seepages must be accounted for.	WR070
8740	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin spills.	WR130
15453	It does not state how long geomembrane covers and liners will last, how they will be replaced and what replacement will cost. It doesn't state how long the equipment doing the treatment is projected to last and how it will be replaced when it fails. It doesn't state how Polymet will maintain the physical plant after operations. In general, it doesn't provide adequate information for the public, voters and regulating agencies to evaluate whether Polymet will be able to treat contaminated water as projected.	PD09, PD35
15454	Polymet having ... no present financial capacity to develop and maintain a copper mine and because it is clear to any business person that control of their decisions and ultimate operations would fall to the established mining entities that would ultimately fund the operations, why is Minnesota not requiring the controlling company or companies from making the commitments required of such a massive mining operation?	FIN01
15456	The mine plan does not describe what will happen if the water treatment plants break down. Will this pollution be discharged into the environment? ... It would be reasonable to expect some reasonable mitigation plans for these events.	WR144
15457	While the area will benefit from increased economic activity, a move to sulfide mining at this time is highly likely to significantly degrade what makes this area of Minnesota such a popular destination.	LU04
<b>Sender Name (Submission ID)</b> Jeff Sullivan (9960)		
323	I support the Polymet project because I am involved with advances being made in the waste water treatment industry and believe that there are effective, practical, and environmentally responsible developments available that will help meet the needs of this project now and far into the future.	PD28, WR190
<b>Sender Name (Submission ID)</b> Jeff Treptau (54878)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jeff Treptau (54878)		
19546	I am looking for a response related to the fault tolerance and backupcontingencies if something goes wrong in the system, to prevent non-treatedwater from escaping the site. For example, an approximately 5 mile long tailings impoundment wall, also known as a cutoff wall or slurry wall is proposed on the site. There is a reasonable concern that with the slurry walls that are this large, it is necessary to ask, "How can PolyMet guarantee that the project will successfully be able to anchor that slurry wall in bedrock along that whole perimeter?"	PD22
19550	It is also possible that the bedrock could fracture beneath the [slurry] wall during installation, which could allow untreated water to seep through.	WR019
19559	the SDEIS mentions pumping a large volume of water from one of themine pits during reclamation but does not provide supporting documentation.What happens if the pit goes dry, exposing it to air and making the rock reactive and therefore a potential threat to the environment?	WR202
19562	...please provide examples of reverse osmosis (RO) systems that have beenintegrated into mining waste water treatment at the same large scale ofimplementation as is being proposed for the North Met project. While RO is aproven technology, how can the citizens and taxpayers of Minnesota be certain that the membranes used in RO are protected for the duration of treatment needed (which could be decades or centuries)? These membranes, which are subject to fouling and scale build up and abrasion, can break down fairly quickly. What is the guarantee that this will be monitored and treated for the duration of proposed actions at the site? What is the backup plan if the RO system fails in the future?	PD03
19563	There are several alternatives that should be considered and evaluated in thePolyMet mine that have been simply discarded. These include whether thePolyMet proposal could operate as an underground mine instead of an open pit, and whether all of the waste rock created by PolyMet should be backfilled into the mine pits after closure.	ALT01, ALT03, ALT06
19567	...the necessary financial assurances needed by the State of Minnesota have not been detailed. The plan commits Minnesota to many years of polluted water treatment without providing critical information about how this will be paid for and who will be responsible for it. Details about financial assurance, a "damage deposit" the company provides, are not outlined in the revised mineplan. The public does not know what the duration of water treatment will be, how much it will cost, how the company will be held responsible for potentiallycenturies of costly water treatment, or how the public will be protected fromliability.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Jeff Wilson (17081)		
2087	If you want to create jobs, start extracting valuable materials from our waste streams. People throw old appliances into the trash, and they go into a landfill. To make their new appliances, we go mine more copper, iron, nickle, chrome, etc.	NEPA06
3445	We've managed to keep the Arrowhead pristine up till now. Why even take a chance of destroying it?	WILD02
3466	If you want to create jobs, start extracting valuable materials from our waste streams [instead of mining].	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Jeffery Kane (36458)		
11560	PolyMet would dig up nearly 1,000 acres of high value peat bogs, part of the 100 Mile Swamp, a critical habitat for many plants and animals. This wetland is designated an Area of High Biodiversity Significance by the Minnesota Biological Survey.	VEG02, WET19, WI02
11563	... over 6,000 acres of wetlands could be damaged or destroyed by PolyMet changing the water flow...PolyMet is required to replace lost wetlands, but they understate the area of wetlands they would affect, they fail to replace the unique habitat offered by peat bogs, and they propose replacements that are far from the mine site.	WET01, WET03, WET05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jeffrey Brown (11335)		
276	The negative economic impact on property values and tourism could far outweigh any economic benefits.	SO01
1615	The proposed economic and employment benefits are small (if they truly exist at all) in comparison to the economic cost and the high probability of damage to the environment in the region.	SO01
1617	The state's taxpayers are likely to bear the burden of mitigating the negative environmental impact of the Polymet project for generations to come. This is an unfair burden to be placed upon our children and grandchildren and their children and grandchildren.	FIN10
<b>Sender Name (Submission ID)</b> Jeffrey Bryan (14491)		
155	The money that the mining company puts up for clean up would quickly be expended.	FIN05
156	There will be plenty of problems that will cause heavy metals and other wastes sulfides/sulfuric acid etc to get into either surface or underground sources of water.	WR115
1743	The brief economic gain for the area is far outweighed by the cost of clean up and the time that this site will have to be cared for into the future.	SO01
1745	Flooding such as happened to Duluth recently or seismic activity could easily cause the containment to fail.	PD11, PD22
<b>Sender Name (Submission ID)</b> Jeffrey D. Rome, M.D. (7347)		
7	the modeling (MODFLOW, XP-SWMM, GoldSim) used to predict the hydrologic and water quality effects of the mining for the next 200 – 500 years cannot, with an acceptable degree of accuracy, incorporate the effects of climate change on precipitation in the arrowhead region of northern Minnesota.	WR077, WR180
8	Thus the statement that the "water quality model predicts that the NorthMet Project Proposed Action would not cause or increase the magnitude of an exceedance of the groundwater and surface water evaluation criteria at the P90 level ..." [ES-35] is inaccurate and untenable.	WR049, WR115
692	The deluge in the Duluth area of June 19/20, 2012, was unprecedented and exceeded the capacities of both natural and man-made systems for managing it. A storm water runoff event of similar or greater magnitude at the mine site creates an unacceptable risk of environmental contamination in a large surrounding area.	PD22
<b>Sender Name (Submission ID)</b> Jeffrey Grosscup (18402)		
9947	The investment in Minnesota and the small 10-year projection of jobs/mining is insufficient compared to the unknown costs to the environment.	SO01
10756	The investment in Minnesota and the small 10-year projection of jobs/mining is insufficient compared to the unknown costs to the environment...Planning for the short term needs to be discarded in favor of a sustainable long term approach. If the mining were to exhausted the deposits after ten years, where would the city of Ely look like with another shut down industry?	SO01
11002	The investment in Minnesota and the small 10-year projection of jobs/mining is insufficient compared to the unknown costs to the environment.	SO01
13248	Planning for the short term needs to be discarded in favor of a sustainable long term approach. If the mining were to exhausted the deposits after ten years, where would the city of Ely look like with another shut down industry?	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jeffrey Iverson (47003)		
13129	Since childhood I have spent summers and winters in the Ely area as one of hundreds of thousands of annual visitors who pour millions of dollars into the area's outdoor tourism economy--clearly among the most dominant sectors of the regional economy....which would be directly impacted by any pollution from the proposed Franconia Mine.	SO02
13130	I ask that...every possible assurance that Polynet will pay for the cleanup necessary, and for the economic losses the region's outdoor tourism industry will suffer.	FIN01
16470	it is likely that I will not be able to teach my son to fish in these same beautiful lakes, because as we know, past sulfide mining elsewhere has resulted in acid mine drainage causing extensive and expensive damage to water quality and the environment.	WR001, WR195
16471	I cannot understand why we would risk potentially catastrophic pollution in exchange for the short-term profits that could be earned from exploiting these lands for their limited mineral resources.	SO01
<b>Sender Name (Submission ID)</b> Jeffrey Kolnick (40018)		
6329	It's not worth it. The answer is conservation and investment in a sustainable economy.	SO02
<b>Sender Name (Submission ID)</b> Jeffrey L Cerar (6630)		
1202	I feel this is an extremely thorough document. No stone was left unturned. The amount of time, money, and effort put into this is incredible. I firmly support the project and believe that it can, and will, be done in the safest way to the surrounding lands, air, and water.	NEPA16
1203	let's finally move forward and issue the permits.	PER34
<b>Sender Name (Submission ID)</b> Jeffrey Lyon (47196)		
10714	As a resident of Duluth, I do not look forward to having our watershed contaminated mine run-off.The history of these mines is problematic, as they often leave behind a legacy of pollution once the mine is closed down.	WR023
10717	Clearly, more jobs are needed in the region. But extractive industries do not make for long-term economic health in small communities, which has been shown over and over again in case studies.	SO02
16916	The PolyMet mine proposal threatens to upset what ecological balance we have remaining here in the north part of the state.	CU11
<b>Sender Name (Submission ID)</b> Jeffrey R Jukich (46403)		
8932	I think this is an appropriate use of this land and I believe the economic impact is greatly needed in this area of St. Louis County.	LU07
<b>Sender Name (Submission ID)</b> Jen Olson (44615)		
12078	If Polymet can't prepare adequate environmental documents, how will they treat our public lands?	PD01
12080	it's heartbreaking to think that areas which continue to provide so much recreation, enjoyment, and food and clean water for my family and other Minnesotans could be irreparably damaged by an industry that knows and cares little about the area it may destroy.	GEN03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jen Y (6)		
22	The few jobs are not worth the environmental impact.	SO01
314	I [do] not trust a company to say they would do this maintenance (or pay for it) for the duration	FIN01, FIN11
<b>Sender Name (Submission ID)</b> Jenn Pontinen (6069)		
1190	...PolyMet will have a great economic impact. In addition to providing employment, it will also cause existing small businesses to expand to meet increased demand for their products and services. New business creation is likely, as well, as new products or services are needed to support precious metal mining.	SO10
1254	The environmental review process has been lengthy and thorough; the supplemental draft EIS addresses potential environmental impacts and how to mitigate them.	NEPA16
<b>Sender Name (Submission ID)</b> Jenn Young (54902)		
17750	The earth doesn't belong to 360 people who could potentially benefit from jobs with PolyMet. It belongs to us all!	SO02
<b>Sender Name (Submission ID)</b> Jenna Grove (18275)		
4087	We know that sulfide mining has a significant impact on our environment and with such a water intensive area, that waste rock, when it is exposed to air and water, yields that sulfuric acid, which will produce that harmful pollution. And according to PolyMet's own reports, this pollution will last a minimum of 200 years at the mine site and 500 at the plant site.	HAZ03, WR001, WR138
<b>Sender Name (Submission ID)</b> Jenna Spicer (14928)		
8906	Even with all the preventative measures PolyMet pledges they will take to protect this wilderness, accidents are inevitable and will still happen. Run off and polluted water seepage will destroy this land and wildlife for many generations to come.	WILD02
13807	It is a shame to hear that this proposal of allowing sulfide mining to take place near the Boundary Waters Canoe Area Wilderness (BWCAW) is actually being considered. The negative effects on the environment from sulfide mining are unavoidable, and with research we know that sulfide mining will damage and pollute the pristine wilderness of the BWCAW.	WILD02
<b>Sender Name (Submission ID)</b> Jenni OLink (45100)		
7570	The SDEIS for the Poly Met Mining Project is flawed and does not guarantee that sulfide mining can be done in Minnesota without seriously harming water and habitat.	WR115, WR195
<b>Sender Name (Submission ID)</b> Jennifer Adams (50039)		
12993	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Jennifer Austin (14)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jennifer Austin (14)		
392	According to a DNR press release, the supplemental draft of the Environmental Impact Statement for Polymet's NorthMet project will be released on the federal register today. I've been searching the register this morning and have not been able to find the draft. Would you be able to direct me to where I can find it?	RFI01
<b>Sender Name (Submission ID)</b> Jennifer Gross (44056)		
7627	I worked up north in Ely a resort where I was first exposed to the idea of mining for precious metal...we could hear that mining that was happening ¾ of a mile or more away!	N02
15046	The waters in that area are all connected. I think it's a huge gamble to take mining in such an environment where a mistake is not only colossal and can potentially harm waters that go into Lake Superior and also into Canada, but any mistake would also be very expensive.	WR111
15047	In the event that the water becomes contaminated, I highly doubt Polymet is going to see the treatment of the water through for the next 500 years. Inevitably, the burden will fall on the tax payers or possibly even go without being treated.	FIN01, FIN10
15048	500 years of water treatment, potentially ruined the lynx and moose habitat, and wild rice patties – is this worth 15 or 20 years of jobs? I'm not convinced.	SO01
15049	I might be more inclined to the idea of mining in such a sensitive area if Polymet instead considered underground mining, but it sounds like the plan is to use open pit mining....	ALT01
<b>Sender Name (Submission ID)</b> Jennifer Jewell Thomas (10280)		
387	The long-term risk to water quality from the proposed PolyMet mining is enormous and the potential benefit is very small.	SO01, WR111, WR195
475	The pristine waters are essential to the appeal of the area for the vital tourist industry that supports visitors like me. The long-term risk to water quality from the proposed PolyMet mining is enormous and the potential benefit is very small. The few mining-related jobs that would go to Minnesotans would be quickly offset by the devastation in the tourist industry that would result from long-term contamination of the watershed.	SO01, WR195
1452	The few mining-related jobs that would go to Minnesotans would be quickly offset by the devastation in the tourist industry that would result from long-term contamination of the watershed.	SO01
19978	The few mining-related jobs that would go to Minnesotans would be quickly offset by the devastation in the tourist industry that would result from long-term contamination of the watershed.	SO01, SO02
19985	The long-term risk to water quality from the proposed PolyMet mining is enormous and the potential benefit is very small.... Only small errors in the water-flow models could lead to the destruction of the wilderness. The potential gain is small and the risk is enormous.	SO01
<b>Sender Name (Submission ID)</b> Jennifer Lund (14922)		
258	The estimated \$10 billion in estimated impact over the twenty years of the project (study by UMD) will help the region to flourish. This growth and sustainability will help families create a stable base for a successful and happy life in our state.	SO10
<b>Sender Name (Submission ID)</b> Jennifer Lynch (57222)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jennifer Lynch (57222)		
17169	The “technology” to prevent polluting our waters are not new and have not proven to be safe.	PER35
17170	We have the largest source of fresh water in our hands to protect for our children and grandchildren – please do not risk contaminating it.	WR195
<b>Sender Name (Submission ID)</b> jennifer p (49991)		
12987	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won’t end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Jennifer Pearson (4222)		
12519	I have grave concerns about not only the long term health and environmental impacts of this mining to our region, but also the socioeconomic realities this may bring	HU03
12521	Will Minnesota’s water stay safe and clean? PolyMet claims it will, but there is NO track record with sulfide mining that allows us to believe this. PolyMet would create polluted water requiring expensive treatment for 500+ years after they stop mining, and leave millions of gallons of untreated, polluted water that could seep from the site every year into the groundwater and nearby rivers.	WR023, WR037, WR070, WR195
12523	I also have grave concerns about the long-term health impacts this mine will impart... The proposed mines will release toxins that will inevitably eventually make their way into our ecosystem.	HU03
12527	The bottom line is that we would trade a healthy ecosystem of air, water, fish, deer, etc. from this region that our children and grandchildren deserve to have, for a couple decades of mining.	SO01
12528	I would like to comment on the long term socioeconomic impact that mining would have. I agree that there would be short term gain, although from all of the sources I’ve read, it would be much less than PolyMet would like us to believe. Many of the highest paid jobs will go to outsiders from around the world that will be brought in to “teach” us how to do this type of mining. Even PolyMet’s initial job predictions have been repeatedly scaled back.	SO06
12530	On top of this, if one looks at similar mines elsewhere in the country, one see’s a pattern of fluctuating employment even when mines are operating. Northern Minnesota relies on pristine wilderness to support its current economy... Sulfide mining would put all of this economic backbone at risk for the potential of short term, volatile gain.	SO02
13143	We are well aware from sulfide mines elsewhere on the planet that metal contaminants that result from sulfide mines can be extremely unsafe for human health at certain exposure levels. Arsenic, manganese, thallium and others are known carcinogenic compounds. Other contaminants such as mercury, copper, lead, cadmium, selenium, zink and nickel also have other known deleterious effects on health. PolyMet SDEIS admits that metals will seep out of the mine pits, waste rock piles and pollution sump ponds on the mine site through the superficial groundwater flow.	HU03
13144	The SDEIS also states that most of the wetlands in these mine site flowpaths are affected by the groundwater, so that contaminant pollution could well up at any time.	WET10
13146	We know that sulfates that are discharged from sulfide mining operations when sulfides are oxidized. Sulfates have been shown to facilitate turning non-toxic forms of mercury into toxic forms- the process known as mercury methylation. We all know that this form of mercury is a bioaccumulative toxin. It does not break down in our environment or in our bodies, as it makes it’s way into our food chain.	MERC08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Jennifer Pearson (4222)	
13147	Methyl mercury is toxic to the brain and kidneys, and can cause known impairment in reproduction, growth, neuro-development, and learning abilities. We know that those most sensitive to the effects of methyl mercury are developing fetuses and newborns. In a health study of newborn babies in the Lake Superior Basin collected from 2007-2011, the MN Dept. of Health found 8% of tested newborns had mercury levels above the safe dose limit for methylmercury as set by the EPA. We also know that mining is the largest source of mercury contamination to the Lake Superior Basin. In a region already affected by mercury contamination, sulfide mining will inevitably contribute to the toxicity, and affect the health of our future generations. The PolyMet SDEIS doesn't tell us how much mercury pollution will be seeping out of the PolyMet tailings into superficial water flowpaths right next to the huge new tailings piles.	MERC03, MERC17
13149	The SDEIS has several tables and charts that show predicted pollution from PolyMet tailings before the pollution gets diluted from other sources. (see Table 5.2.2-38, 5.2.2-42, and 5.2.2-43) There are other metals that show huge increases over existing conditions but there are no listings in any of these charts or tables for mercury.	MERC06
13152	What is PolyMet trying to hide? Mercury contamination is already one of our biggest concerns in this region. The SDEIS is inadequate in revealing how much mercury seeping out of mine pits, waste rock pile, and liners to surface water flowpaths starting at year one of the mining process. The SDEIS must be redone to reveal how much mercury will be released directly or indirectly from the mine site into surface waters. The developing brains of our babies and children in this region depend on this.	HU01
13153	It has also become evident that the water model at the heart of PolyMet's SDEIS is flawed. How could this even be considered marginally acceptable within an environmental review document? As people of this region, we demand that accurate water flow data be obtained. The SDEIS does not provide this. ALL of these contaminants mentioned above and the reality of how they will insidiously seep into our water, our environment and eventually our bodies need to be based on accurate, accountable science. The health of future generations depends on this.	HU03, WR003, WR165, WR189
13158	There are grossly sub-standard safeguards in place in the SDEIS to assure that our water can be kept safe for the centuries that it will take to rid this region of all of the contaminants exposed from this type of mining process. I've addressed above the day to day insidious seepage that is unaccounted for. But what also happens in the case of natural disasters such as the recent flood? What happens if there's equipment failure in the treatment plant? What happens when there's malfunction that allows leakage of toxic contaminants into the surrounding water-rich watershed? If water treatment is going to be required for centuries, we had better have accurate, accountable plans for all of the "accidents" that will inevitably occur.	PD22, WR130
13163	As a regulatory agency, your responsibility is to assure that each and every contaminant has been accurately and effectively accounted for by PolyMet...And included in this, we need detailed accountability for all of the unpredictable ways that these contaminants can leak into our environment through natural or mechanical mishaps. It is unfathomable to me that as a state and region, we are willing to gamble on the future of our natural environment and clean water. As much as many of us would like to open our arms to the jobs this would create for our region, the SDEIS is woefully inadequate in assuring us that our region will be safe from the toxic affects of mining.	HAZ01
14588	We are well aware from sulfide mines elsewhere on the planet that metal contaminants that result from sulfide mines can be extremely unsafe for human health at certain exposure levels. Arsenic, manganese, thallium and others are known carcinogenic compounds. Other contaminants such as mercury, copper, lead, cadmium, selenium, zink and nickel also have other known deleterious effects on health. PolyMet SDEIS admits that metals will seep out of the mine pits, waste rock piles and pollution sump ponds on the mine site through the superficial groundwater flow.	HU03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Jennifer Pearson (4222)	
14589	The SDEIS also states that most of the wetlands in these mine site flowpaths are affected by the groundwater, so that contaminant pollution could well up at any time. I could write a 10 page letter exploring the deleterious effects on health of each of these contaminants, but let's choose one to look at as an example- mercury. We know that sulfates that are discharged from sulfide mining operations when sulfides are oxidized. Sulfates have been shown to facilitate turning non-toxic forms of mercury into toxic forms the process known as mercury methylation. We all know that this form of mercury is a bioaccumulative toxin. It does not break down in our environment or in our bodies, as it makes it's way into our food chain... We also know that mining is the largest source of mercury contamination to the Lake Superior Basin. In a region already affected by mercury contamination, sulfide mining will inevitably contribute to the toxicity, and affect the health of our future generations. The PolyMet SDEIS doesn't tell us how much mercury pollution will be seeping out of the PolyMet tailings into superficial water flowpaths right next to the huge new tailings piles.	HU03, WR120, WR158, WR189
14590	Mercury contamination is already one of our biggest concerns in this region. The SDEIS is inadequate in revealing how much mercury seeping out of mine pits, waste rock pile, and liners to surface water flow paths starting at year one of the mining process. The SDEIS must be redone to reveal how much mercury will be released directly or indirectly from the mine site into surface waters. The developing brains of our babies and children in this region depend on this.	MERC20
14591	It has also become evident that the water model at the heart of PolyMet's SDEIS is flawed. How could this even be considered marginally acceptable within an environmental review document? As people of this region, we demand that accurate water flow data be obtained. The SDEIS does not provide this. ALL of these contaminants mentioned above and the reality of how they will insidiously seep into our water, our environment and eventually our bodies need to be based on accurate, accountable science.	WR003, WR165, WR189
14592	Lastly, there are grossly sub-standard safeguards in place in the SDEIS to assure that our water can be kept safe for the centuries that it will take to rid this region of all of the contaminants exposed from this type of mining process. I've addressed above the day to day insidious seepage that is unaccounted for. But what also happens in the case of natural disasters such as the recent flood? What happens if there's equipment failure in the treatment plant? What happens when there's malfunction that allows leakage of toxic contaminants into the surrounding water-rich watershed? If water treatment is going to be required for centuries, we had better have accurate, accountable plans for all of the "accidents" that will inevitably occur.	FIN05, WR130
14593	As much as many of us would like to open our arms to the jobs this would create for our region, the SDEIS is woefully inadequate in assuring us that our region will be safe from the toxic affects of mining.	SO01
<b>Sender Name (Submission ID)</b>	Jennifer Schultz (41050)	
8649	There are more than twenty sites in the Duluth Complex that are designated as potential mining operations. Any review of the environmental impact of mining should require assessment of the impact of all of the projects together, not piecemeal analysis of one project at a time.	CU15
8652	There should be no change to our allowable limits for water quality.	PER16
8655	To allow them [allowable water limits] to be significantly altered -- by as much as 28 times more allowable pollution -- in response to political and financial pressure is not acceptable.	PER29
8661	It is my understanding that the techniques planned for water purification are incapable of reaching required water standards today, much less complying to those standards for hundreds of years in the future.	FIN01, WR128, WR143

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jennifer Schultz (41050)		
8665	In addition...rational assessment requires evaluation of pollution by many other potential contaminants that are being ignored. This includes not only mercury, arsenic, and other chemical pollutants, but also both air and water pollution with small mineral fibers.	AIR10
8667	Financial guarantees should require indemnification not just for the estimated minimum \$450 million cost for closing the project, but for potential costs of chronic or catastrophic failures of safety systems.	FIN05
8674	The legislature should pass laws to ensure this [indemnification], requiring bonding guarantees in the billions of dollars. Mining companies [PolyMet] should be held responsible or not be allowed to operate.	FIN01, FIN14
8681	Good quality on-going monitoring and assessment of [NorthMet's] environmental impact and pollution will be critical from day one until hundreds of years in the future, in order to assure public safety.	PER06
8695	To provide [on-going monitoring and assessment of NorthMet]...we will need to hire many trained technicians and invest in scientific instruments to perform continuous monitoring on an independent basis. Funds to pay for this should come from taxes on the mining operations themselves, and should not be passed off to general taxpayers. These new taxes should be passed by the legislature to pay for independent monitoring now and for centuries to come.	FIN01, FIN10, FIN11, FIN14
8699	...new mining should include a comprehensive, unbiased economic cost-benefit analysis. Benefits of new jobs created [by NorthMet] and new taxes generated must be weighed against the costs of pollution and costs to existing businesses and residents, including the impact on the recreation and tourism industry.	SO04
8708	Safety elsewhere is not sufficient; we need our own guarantees, standards, and monitoring, some of them scientifically specific to Northeastern Minnesota.	PER06
<b>Sender Name (Submission ID)</b> Jennifer Stattelmann (19891)		
1492	We are worried that the thirst for new jobs on the Iron Range and the desire for tax revenues is driving this with little regard for the burden the natural environment and the taxpayers of Minnesota and, possibly, the United States, might have to bear in the coming years, decades, centuries.	SO02
1493	We canoe, wild rice, and fish and are concerned that the possible increase of sulfates in the St. Louis watershed will impact these activities.	WR156
<b>Sender Name (Submission ID)</b> Jenny Brude (42820)		
7276	How much should the state need to protect taxpayers? That is, how large should a fund be? This is a great unknown. \$500 million, a billion? What could 500 years of impacted waters really cost us? The two figures I previously mentioned seem, in that context, abysmally small. Corporations that have polluted the environment have long gone out of business as a mechanism to escape the costs of reparation. What we have here is 20 years, at most, of local employment (and how much would actually be local is uncertain) against 500 years of devastated, contaminated waters, and all the losses that come with that.	FIN01, FIN05, FIN10
7276	How much should the state need to protect taxpayers? That is, how large should a fund be? This is a great unknown. \$500 million, a billion? What could 500 years of impacted waters really cost us? The two figures I previously mentioned seem, in that context, abysmally small. Corporations that have polluted the environment have long gone out of business as a mechanism to escape the costs of reparation. What we have here is 20 years, at most, of local employment (and how much would actually be local is uncertain) against 500 years of devastated, contaminated waters, and all the losses that come with that. In its totality, that represents a clear argument against a permit in itself	FIN01, FIN05, FIN10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jenny Brude (42820)		
18231	as lead agency, public comments I fear are all window dressing. Given the DNR's background, the permit has likely already been approved. We who oppose never stood a chance.	NEPA15
18231	as lead agency, public comments I fear are all window dressing. Given the DNR's background, the permit has likely already been approved. We who oppose never stood a chance.	NEPA15
18234	We're only slowly passing beyond the first decade of the new century that dragged its feet on automobile fuel efficiency. We realize there is a global environmental problem on many fronts, yet we drag our feet in all attempts to mitigate the antecedents. Let's address them. Let's put our time and effort into making the need for all the things we use up, less, and less, first.	NEPA06
18234	We're only slowly passing beyond the first decade of the new century that dragged its feet on automobile fuel efficiency. We realize there is a global environmental problem on many fronts, yet we drag our feet in all attempts to mitigate the antecedents. Let's address them. Let's put our time and effort into making the need for all the things we use up, less, and less, first.	NEPA06
<b>Sender Name (Submission ID)</b> Jenny Kedward (58115)		
19900	Based on the EIS, I cannot support a mining operation that would leave the state or federal government liable for actions of one business. Water quality is evolving constantly.	FIN01
19901	China is the main consumer of copper – more that all other countries put together. I do not feel we need to destroy our land, air, and water to feed Asian growth.	FIN04
19942	Lead pollution is stated as inevitability with this plan. We know for certain the health and environmental risks associated with lead and mercury.	HU02
20023	We have also not exhausted our recycling efforts for copper. As a recycling educator, I see firsthand what precious metals we send to the landfill.	NEPA06
<b>Sender Name (Submission ID)</b> Jenny Putnam (39101)		
12095	The reason I am so concerned about this [NorthMet], in spite of poly met saying that they would be responsible, is that the financial assurances need to remain in place for an extreme amount of time.	FIN01
12096	Financial assurances that need to be in place for 200 to 500 years have not ever been proven.	FIN01
12098	The land swap between the forest service and poly met in my mind needs to have its own separate review.	LAN10
12100	The related jobs, as well as construction jobs, taxes and other benefits this tourism economy and vacation home industry brings to the state is sustainable and can be grown.	SO10
12102	I do not believe that the current tourism economy and vacation home industry could flourish side by side with the nonferrous mining economy which brings pollution and greater industrialization to this unique part of our country.	SO02
12107	Plan to account for the destruction of moose habitat as well as other natural habitat for the Canadian lynx	WI02
12108	Plan should call for a detailed plan for financial assurances that protect current and future taxpayers	FIN10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jenny Putnam (39101)		
12111	Plan should accurately assess health risks to the public	HU01
12112	Address the risks of mercury pollution for our children as well as future generations	MERC03
12114	Plan should improve wetland protection and replacements	WET04
12117	Provide Minnesotans with accurate information about how long polluted waters will require treatment	WR036
12118	Glencore must be recognized as a responsible party for permitting because of its ties with PolyMet	PER02
12119	Fix the inaccurate water data used in the model and redo the water model	WR003, WR189
<b>Sender Name (Submission ID)</b> Jensen Ronald J (44754)		
7455	My hope is that the DNR will continue to protect our natural resources for the use of all Minnesota citizens, rather than allowing the environment to be destroyed for the benefit of a Canadian corporation and a few hundred jobs.	SO02
7459	the SDEIS is seriously flawed in its water flow models, estimates of habitat destruction, and cost/risk models for environmental clean-up.	WR086, WR091, WR092, WR093, WR105
7460	I sympathize with the workers in NE Minnesota who need jobs, but I don't think their employment in a boom-and-bust industry like mining is worth the cost to the other 5 million Minnesotans and the entire country, for generations to come.	SO02
7464	I urge you to think of the greater good of all Minnesotans, our precious natural resources, and generations to come, and not give in to short term economic interests.	SO01
7465	I expect the DNR to demand an EIS that is accurate and comprehensive. The current SDEIS does not meet the standards I expect for Minnesota.	NEPA15
<b>Sender Name (Submission ID)</b> Jeremiah Boe (50099)		
13034	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Jeremy Beck (43075)		
10017	500 year cleanup - Who is going to be maintaining this cleanup operation, especially when Polymet or Glencore are no longer in business?	FIN01
10018	We've had several 1,000 year floods in the last few years. What happens in the event that the containment basin is overflows or is otherwise breached?	GT15
15340	Flawed Water Study - The water modeling was done using water flow data from a time with historically low water levels. I feel more representative data should be used to assess the full impact.	WR003
<b>Sender Name (Submission ID)</b> Jeremy Reichenberger (9477)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jeremy Reichenberger (9477)		
943	People ask, can we trust PolyMet? It's not PolyMet we need to trust. It is Glencore Xstrata, the primary owner of PolyMet, which [reportedly] will buy the rest of PolyMet once all the permits are in place. So, who is Glencore Xstrata?	PER02
944	Glencore Xstrata has run up a long list of labor and environmental abuses, including 58 mining fatalities between 2008 and 2010, over twice the number reported by any other mining company over that period. Just in 2012, their environmental and labor record includes dumping raw acid in waterways in the Congo, failure to provide a vapor barrier to keep an acid mist from descending on 3,000 people in Zambia, utilizing child labor as young as 10 years old in mines in Congo, and causing environmental damage at its McArthur River mine in Australia.	PER02
<b>Sender Name (Submission ID)</b> Jeremy Swanson (39363)		
13070	My wife and I are already researching other states to move to that value natural resources and human life and wildlife more than money. We'll be prepared to move when and if these mines are approved, it will be disheartening, but we literally and physically and mentally cannot support such disdain for the wildlife and nature of this state and country.	SO02
13072	We've seen programs where PolyMet 'claims' they're environmentally safe and have cleaned up their act. They say they'll implement cleaning acts to help with ground water contamination [a clear admission of fault in and of itself] once their new mining facilities are opened...	FIN08
<b>Sender Name (Submission ID)</b> Jerome (54733)		
18838	There is already concern about the level of carcinogens and minerals that cause nervous tissue damage around Lake Superior. The proposed mining will release more of these minerals into both air and water. These by-products of sulfide mining have not been adequately studied. They will enter our natural systems for hundreds of years.	WR107, WR108, WR111, WR115
18839	Although the SDEIS acknowledges that 912 acres of wetlands will be directly destroyed by the mining digging and another 7, 413 acres will be impacted so that land exchange must be arranged, the proposed "mitigation" replacement land is not the same fragile ecosystem which is at the proposed PolyMet site. The Minnesota Biological Survey has termed the land at the proposed mining site to be vulnerable and of "high biological diversity." It is clear that life forms in this fragile area will not survive and will be lost forever.	WET15
<b>Sender Name (Submission ID)</b> Jerome A Challman (42763)		
14520	The PolyMet SDEIS "health risk assessment" doesn't include any analysis of the effects of the project on on-site workers. This is completely unacceptable. To not have competent analysis of the effects on the actual people that do the work on-site is unconscionable. These will be the people most directly involved.	HU04
14521	SDEIS p. 5-438 to 439 show that PolyMet ore and wastes will include asbestos-like fibers. Approximately 9% of the fibers in ore, tailings, and process water are amphibole fibers and about 2% of the waste rock minerals are serpentine. In the U of M study, Northshore workers in the crushing process had particle exposures over the safe exposure limit. PolyMet SDEIS says they'll take air exhaust from the crushing plant and vent it back into the plant to reduce heating costs. The study shows the danger of this plan.	AIR03
<b>Sender Name (Submission ID)</b> Jerome Ekre (57560)		
19560	If the local and State-Federal governments allow the Poly-Met mining project the investors and the employees will benefit.	SO10
19561	The land exchange sounds to be a reasonable action.	LAN11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jerri Ann Walseth (54150)		
16041	I think it will lead to pollution that no one will want to pay to clean up.	FIN01
<b>Sender Name (Submission ID)</b> Jerritt Johnston (44701)		
7431	The models used to predict water flow are inaccurate and do not match actual rate of water flowing from the site.	WR003, WR052, WR086, WR091, WR105
7439	no amount of financial assurance that a company will be willing to pay will cover the costs of maintaining this site in perpetuity.	FIN01
7440	Minnesota state law requires that closed mines be maintenance free. Two hundred years of water treatment at one location and 500 years of treatment at the other do not meet that requirement.	PER04
7442	There is not enough attention paid to cumulative effects of this project in relation with past iron and taconite mining in the area.. cumulative effects need to be addressed in relation to other copper-nickel mining projects moving forward in this region of the state.	CU02
7443	[The socioeconomic-section] was prepared using an IMPLAN model, which has been shown to overestimate the impact of new economic activity.	SO04
7445	the document states that employment will only be increased by about one percent in the region. This is not a compelling reason to move forward with a project that will cause this much damage.	SO02
7450	To destroy[the Superior National Forest and the woods in northeastern Minnesota] to mine for possibly 20 years is failing the DNR's mission to manage our resources and is in direct conflict with the Forest Service's responsibility to manage the forest for multiple uses.	LAN01
<b>Sender Name (Submission ID)</b> Jerry & Nancy Irsfeld (42783)		
6772	We fear water contamination in the form of nitric acid will leach from this mining site and make its way to Lake Superior.	WR111
<b>Sender Name (Submission ID)</b> jerry and Shirlee maertens (45301)		
9176	True natural areas are becoming less and less and what often replaces them are the scars and contaminations left on the land for future generations to deal with.	LU06
9178	the 300-400 permanent jobs that this mining project provides for only 20 years is a small number in the long-term scheme of things. It really is not worth the uncertainty and cost of possible consequences to the waters and land in that area at this time.	SO01
9187	I am concerned that this process of chemical extraction in order to separate copper and other metals from the sulfide rock material requires vast amounts of water that have the potential of polluting or contaminating surface and ground water quality.	WR156
9192	Another problematic finding regarding water after the SDEIS was released in December 2013 is the the discrepancy in the water flow under and near the proposed Poly Met copper mine in the area north of Hoyt Lakes. So what does this new info do the the models using different hydrological input	WR003, WR004, WR091
9195	there is a certain amount of risk and that most likely some pollution, leaching, contamination of surrounding environment will occur.	WR129

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> jerry and Shirlee maertens (45301)		
9201	What health effects will additional mercury, lead, exposure to asbestos-like fibers, etc. have on air quality and area waters and regional downstream waters?	AIR10, WR025
9202	WILD RICE concerns - Has the final and definitive answers to questions regarding the higher sulfate effects on wild rice been satisfactorily resolved?	VEG04
9204	MAINTENANCE AND CLEAN-UP BY POLYMET THAT THEY (OR ANY FUTURE NEW OWNER(S) WILL BE FOREVER LIABLE AND ACCOUNTABLE FOR ANY CLEAN-UP OR TOTAL DAMAGE COSTS TO THE ENVIRONMENT INTO PERPETUITY must be a part of the permitting and mining agreement.	FIN01
15571	Just how great is this “demand” at this time? It seems that there could be a possible ALTERNATIVE to mining at this time also. Before we mine our deposits here in Minnesota with an unproven method of copper sulfide mining, we should consider and make an honest attempt to recycle these same metals from the electronics that we as Americans so readily discard.	NEPA06
15572	The fact that evidently no where on earth has copper sulfide mining been benign to the environment should not go unheeded.	GEN01
15573	To bury Categories 2/3 and 4 waste rock in an subaqueous pond is not much of a disposal solution. So you slow down oxidation. It is somewhat parallel to storing spent radioactive rods underground.	PD15
<b>Sender Name (Submission ID)</b> Jerry Fruetel (45684)		
12854	I urge each and every regulator on this project to gather your courage, remind yourself of what’s at stake, and do your utmost to protect Minnesota's environment and minimize its financial exposure.	SO02
<b>Sender Name (Submission ID)</b> Jerry Fryberger (18191)		
13424	I am embracing the PolyMet project in my backyard ... They have done their due diligence. They rolled up their sleeves, rolled up their socks, and made sure that we're going to have a continuation of clean water, clean air and clean skies.	NEPA16
<b>Sender Name (Submission ID)</b> Jerry Groeneveld (4335)		
1801	[There were] a lot of details missing from the report [including]...the chemistry, material balance, energy balance and control strategy throughout the entire operation. ... Each part of the entire operation should have a detailed material balance of all inputs and outputs including physical and energy inputs and outputs.	PD29
1802	there might be waste streams that can be a valuable byproduct of these operations. Byproducts can be additional revenue and eliminate the possibility of these products being slowly leached into the water or vented to the air.	ALT09
1803	Another item that could be valuable [in the SDEIS] is a comparison to ferrous mining that has been done successfully for many years. How do the waste streams compare, how are they handled and what have been the problems.	PD27
<b>Sender Name (Submission ID)</b> Jerry Hallead (29940)		
10987	This is an egregious attack on the human, animal and environmental state of this region of the United States and will very certainly have destructive effects that will never be reversible.	NEPA15

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jerry Hallead (29940)		
13865	Please keep these States and the wilderness areas, that most certainly will be affected, in the pristine condition that is now enjoyed, so that it can be enjoyed for generations to come.	WILD02
<b>Sender Name (Submission ID)</b> Jerry Kahlert (51581)		
3619	The known -- and unknown -- hazards of sulfide mining demand that any permit granted for mining in Minnesota be conditioned on a posted bond sufficient to cover the costs of mitigating any and all of those hazards.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Jerry Pederson (9747)		
288	in support of the project that will provide jobs for union families at the PolyMet North Project in Northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Jerry Stahnke (54877)		
19400	I am concerned that there has not been enough data collected to determine if the wild rice, which is so valuable a resource to the health and welfare of the Ojibwe community will be protected as the evaluation appears to be based on modeling only.	VEG04
19401	I am concerned that the tailings basins leak.	WR126, WR132
19402	While the Supplemental Environmental Impact Statement says the chances of encountering saline water is low, I believe that there is a very good chance that it will be encountered.	WR078
19403	I am concerned that there is not enough financial assurance to address the mine post closure and that the State of Minnesota will be left paying for the clean-up costs, especially if the price of copper fluctuates downward.	FIN01, FIN08, FIN10
19404	I am concerned that the people who will profit most from mining these resources out of Minnesota do not live in Minnesota or even the United States.	SO06
19405	I am concerned that DNR does not have the expertise to properly evaluate the impacts of this mine on the resources of Minnesota.	PER43
<b>Sender Name (Submission ID)</b> Jerry Witte (7707)		
827	I propose a moratorium on the Polymet mining process until a working reverse osmosis water treatment can be installed at the worst polluting ferrous tailing pit or mine. This will prove the technology works, the cost of the technology, and the cost of the hundreds of years of filtering that will be needed. If the watershed shows improvement, then the cleaner waterways will be able to accommodate the add planned runoff of the Polymet mine.	PER25
829	The current ferrous mining has old mine and current mines tailings that produce acid runoff into ground water, streams and rivers. The level of this runoff is at or beyond the level that nature can naturally clean it up	WR001
830	...the Polymet mine will also allow a degree of acid seepage into a water system that is already at or beyond its pollution max.	WR001, WR109
<b>Sender Name (Submission ID)</b> Jesse Bearheart (39576)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jesse Bearheart (39576)		
6839	As a wild rice harvester and a First Nations person who depends on subsistence living I am most concerned about the legacy that sulfide mining... would leave behind.	CU11
<b>Sender Name (Submission ID)</b> Jesse Peterson (18133)		
3456	The PolyMet SDEIS artificially limited cumulative-effects discussion of water quality to just the Partridge and Embarrass Rivers. The St. Louis River was left out completely. This cuts out anyone who be fishes or eats fish caught downstream in the St. Louis River and Lake Superior and ignores the impacts on the Fond du Lac Tribal Waters.	WR159
3457	The PolyMet Project would increase mercury in the Embarrass River and could increase mercury methylation near the mine site, as well. Increases in mercury or sulfates at PolyMet could increase mercury in the fish in the St. Louis River.	MERC02
13510	I'd like to just speak to Glencore a little bit. I think it's highly inappropriate to do business with a company that's manufactured famines as a way of doing speculative trading to inflate the price of food and they've also been implemented sitting on ore to inflate the value. And so they're a criminal organization. They're invested in PolyMet and I think it's highly inappropriate to be working with them	SO02
13511	Both existing LTV tailing seeps and the other mine discharges flowing into the St. Louis River also carry high levels of specific conductance which the EPA has found can be toxic to fish. Tribal research shows that specific conductance is the water chemistry signature for mining discharge that can take more than 100 miles to dissipate.	WR064
13512	Cumulative analysis of water quality impacts in the SDEIS must include the St. Louis River and must specifically analyze impacts on mercury contamination of fish and impacts of specific conductance levels on fish.	AQ14, MERC02
<b>Sender Name (Submission ID)</b> Jessica Eberl (57353)		
18362	The EIS should be redone to make a cumulative assessment of arsenic exposure and cancer risks for people in Hoyt Lakes, including formula fed infants and people who rely on fish and wild rice for food.	HU02
<b>Sender Name (Submission ID)</b> Jessica Gardner (57980)		
19830	I am worried about the impacts this project will have on moose, lynx, & other animals.	WI01
<b>Sender Name (Submission ID)</b> Jessica Hemmer (43079)		
14992	I have worked and enjoyed our great woods and waters at a canoe outfitter located just outside of the Boundary Waters...I feel the boom then bust that would be created by this mining proposal is not worth the harm it would ultimately cause to some our unique plants and animals.	SO01
<b>Sender Name (Submission ID)</b> Jessica L. Ostrov (9326)		
926	Why would we invite something like that to take place at the headwaters of 20% of the world's freshwater?	WR111
930	it still allows 10% of the sulfuric-acid laden water to escape into the waterways. That is unacceptable.	WR018
<b>Sender Name (Submission ID)</b> Jessica Langevin (18272)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jessica Langevin (18272)		
13897	I just think there are things more important than jobs. It is only for 20 years, and the environment, I mean that's forever.	SO01
<b>Sender Name (Submission ID)</b> Jessica Ley (58174)		
20033	Acid mine drainage will drastically lower the pH of our waters, potentially changing the community of life that resides in our northern lakes and rivers.	WR001
20034	Erosion accompanies the deforestation that will be unavoidable. This increases the turbidity of nearby waters, reducing photosynthesis and oxygen levels, also detrimental to life in our aquatic ecosystems.	VEG07
20035	In a part of our state that receives a large part of its revenue from ecotourism, 20 years of mining and the temporary jobs it will bring is not worth lifetimes of water pollution and destruction of natural environments.	SO01
20036	The copper and nickel this mine would produce is such a low grade that they need to remove an incredible amount of rock to make it worth it. This will scar the land beyond recognition, in the most beautiful part of our state.	LU04
20037	The stored tailings can contaminate the groundwater, and communities would have nowhere else to turn for their water.	HU03
<b>Sender Name (Submission ID)</b> Jessica Martinez (41763)		
15364	It is going to destroy more liveliness than will be created and it is a solution that corporations and companies are using just to create a simple solution for the NOW, not for the future.	SO01
<b>Sender Name (Submission ID)</b> Jessica Rocheleau (9359)		
13727	•The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Jessica Stein Diamond (13)		
390	It is ... unacceptable for the state of Minnesota to approve the PolyMet mining plan for 500 years of treatment of polluted water to be left behind from 20 years of mining.	WR115
391	There is absolutely no economic good worth poisoning this beautiful, essential and priceless resource for so many generations to come.	SO01
<b>Sender Name (Submission ID)</b> Jessica Straczowski (44819)		
7767	the main reason I am opposing this kind of mining is the dangers it poses to our clean water.	WR115
7768	Why would anyone knowingly risk our water quality - our meaning it affects all of us and our future generations.	WR195
7771	Who are the ones who will make sure that clean-up is done appropriately in a hundred years?	PER04
<b>Sender Name (Submission ID)</b> Jessie Kruchowski (38176)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jessie Kruchowski (38176)		
13703	If Polymet opens their doors we anticipate we will employ anywhere from 20-30 employees, that is 20-30 families right here in our community that will be supported by just one small business.	SO10
<b>Sender Name (Submission ID)</b> jfalk (3276)		
9	... the (SDEIS) document is too complex and lengthy for me to make an informed analysis based on my own knowledge.	NEPA07
10	any jobs for Minnesotans (created by this Project) are temporary.	SO02
11	the bulk of the profits (from this Project) will flow out of the local economy.	SO06
12	the “toxic legacy of damaged waterways” (from the Project) will remain permanently here in Minnesota.	WR115, WR195
13	there is zero evidence to back up the claim that sulfide mining can be done without causing devastating watershed pollution.	WR023
14	Only if and until, the mining industry has a demonstrated track record that it has the means and the willingness to invest the effort and the capital necessary to mitigate all present and future environmental costs, the benefits of the mine cannot possibly outweigh the damages to Minnesota’s water resources, resources that may require treatment for more years into the future than can be accurately predicted.	SO01, WR023, WR115, WR195
19572	To be frank, the document is too complex and lengthy for me to make an informed analysis based on my own knowledge.	NEPA07
19574	...any jobs for Minnesotans are temporary, the bulk of the profits will flow out of the local economy, and the “toxic legacy of damaged waterways” will remain permanently here in Minnesota.	SO01
19576	“Mining without harm” and “environmentally safe mining” have been promised, but there is zero evidence to back up the claim that sulfide mining can be done without causing devastating watershed pollution. In fact, mining of sulfide-metal ore has never been accomplished without causing eventual acid-metal leachate pollution of ground and surface waters. As a result, Wisconsin wisely placed a moratorium on sulfide mining operations in 1997, until it could be demonstrated that such a mine would not pollute the water.	WR195
19579	The construction of [the PolyMet] mine...violates the Precautionary Principle: “if an action or policy has a suspected risk of causing harm to the public or to the environment ... the burden of proof that it is not harmful falls on those taking an action.” Only if and until, the mining industry has a demonstrated track record that it has the means and the willingness to invest the effort and the capital necessary to mitigate all present and future environmental costs, the benefits of the mine cannot possibly outweigh the damages to Minnesota’s water resources	NEPA09
<b>Sender Name (Submission ID)</b> jgust350@yahoo.com (38485)		
13597	The iron ore mines won't last forever -let's get something new going on up here.	SO02
<b>Sender Name (Submission ID)</b> Jill Alisa Holmen (57262)		
17399	The proposed mining is a massive invasion to the landscape and wildlife, not to mention a permanent damage for very short-term gain.	SO01
<b>Sender Name (Submission ID)</b> Jill Boogren (48849)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jill Boogren (48849)		
12950	Polymet's own study that says water from the mine site would need 500 (500, not a typo) years (YEARS, also not a typo) of treatment...There is absolutely no way to guarantee Polymet will be around that long to pay for it.	FIN01
12951	We have an incredible array of wildlife here in Minnesota -- bear, bald eagles, loons, lynx, moose -- including the largest population of wolves in the lower 48. And we want to tamper with their drinking water?	WI01
<b>Sender Name (Submission ID)</b> Jill Eisenberg (18264)		
13718	Water is one of our most precious resources...but even I know that when you mine for copper sulfide, it mixes with the oxygenation in the air to turn to sulfate, which in turn mixes with water, and you get sulfuric acid. This is acid rain.	WR001
13719	I know there is a need for jobs in Minnesota, but 500 years of jobs cleaning up the environment are not what we need.	SO01
<b>Sender Name (Submission ID)</b> Jill F Blooston (44516)		
10657	Please think of the next generations, they do not need any more super sights to clean up, find another way for people to be employed.	PD01
<b>Sender Name (Submission ID)</b> jill faulknr (16960)		
11024	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Jill Holmen (39144)		
5453	People travel here from across the globe to take in one of the last places of pristine, unspoiled wilderness. The mining proposal and EIS simply do not account for all the unexpected and prolonged issues that will occur, and will subsist. If its jobs we seek, let's consider jobs in greener energy and tourism, the true reasons why people proudly call Minnesota home and why visitors keep coming back.	SO10
12535	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Jill Lyman (47258)		
9246	No matter what regulations are in place or how much money is set aside, the inevitable byproducts of sulfide mining promise to include sulfur-dioxide emissions, acid rain, millions of tons of solid toxic waste, and the slow leaching of chemicals from tailings into surface water and ground water.	HAZ03
9247	Glencore, the Swiss mining and commodities trading giant funding PolyMet, has a history of polluting the areas that it operates mines in. They have also been involved in corruption and human rights violations.	SO02
9248	We need to find jobs for our state that are sustainable and environmentally sound.	SO02
<b>Sender Name (Submission ID)</b> Jill Murette (43267)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jill Marette (43267)		
15786	Prevent the pollution before it happens, putting money in a fund for clean-up isn't going to solve the problem. Once you have pollution, the environment will never go back to what it was.	FIN10
15787	Don't let them mine until they can prevent the pollution. ...Jobs are important, I grew up on the Iron Range, but you can never turn back time.	SO01
<b>Sender Name (Submission ID)</b> Jill Radman (3386)		
645	These mines always have terrible pollution and it lasts up to 500 years.	WR023
<b>Sender Name (Submission ID)</b> Jillian Tjosvold (54774)		
19457	I support copper/nickel and other precious metal mining projects in Northeast Minnesota because of the thorough and rigorous state and federal process that is required for permitting new mines. I have faith that the experts and professionals in our state and federal agencies and believe that the SDEIS adequately analyzes PolyMet's project.	NEPA16
19458	This project is both pro-environment and pro-jobs. Copper/nickel mining can be done in a way that protects the environmental and provides jobs.	NEPA02
19460	If these metals are not mined in Minnesota, they will be mined in places around the world that offer no safety protections to workers, where children are routinely put in danger by being forced to work in these unsafe conditions, and where workers are exploited by being paid very low wages that do not allow them to feed their families.	NEPA05
19462	The detailed analysis in the SDEIS shows that PolyMet will meet or exceed standards to protect human health and the environment. The analysis also points out the significant economic benefits that the project will create.	NEPA16
<b>Sender Name (Submission ID)</b> Jim Atkinson (18115)		
3369	And [the SDEIS]'s based on what I think are very conservative assumptions. I think we're really looking at a worst-case scenario in the predictions that are made. And reality provides a comprehensive and understandable analysis of the issues which it should after 10 years of development.	NEPA16
13495	And what I know about it is they always without fail have been very cautious and deliberate and really spent the time and energy necessary to make sure that things were the way they were supposed to be.	NEPA16
<b>Sender Name (Submission ID)</b> Jim Baratto (4482)		
1834	I would like to ... make this process move forward in an effort to get this mine up and running to provide jobs in Minnesota and boost the overall economy.	SO10
<b>Sender Name (Submission ID)</b> Jim Barott (45596)		
15901	I believe the shipping of the mine tailings by rail to northwest Minnesota should be thoroughly analyzed for its economic and environmental benefit. ...The benefit of shipping the sulfur laden rock to northwestern Minnesota would be due to the calcareous / higher pH / high cation exchange capacity nature of the soils in that area. The soils in northwestern Minnesota a high buffering capacity, compared to a low buffering capacity / lower pH soil in its current northeastern Minnesota location.	ALT10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jim Butcher (48163)		
12094	We are also being assured that steps will be taken in the way of “financial assurances” to ensure that Minnesotan taxpayers will be not held liable for environmental clean up. I am not sure how that statement can be made with any clear conscience when the negative impacts resulting from only 20 years of mining is expected to require hundreds of years of mitigation action.	FIN10
12105	The Polymet project should not be approved until some form of methodical and acknowledged risk assessment such as a fully detailed FMEA is performed and made public. This exercise should include local citizens and environmentalists as well as sulfide mining experts	NEPA15
12109	Today’s financial “penalties” for environmental damage obviously do not work. Minnesota should develop special criminal penalties for failure to comply with permitted effluent discharges for such major and long-term projects as the proposed Polymet project.	PER06
12113	As scientific knowledge continues to develop and our understanding of the interaction between released chemicals and humans and the environment improves, permitted standards should be regularly updated and incorporated into Polymet operating requirements	PER06
17323	Polymet has not managed any mining operations, let alone a sulfide mining operation. Others who have, have by all accounts, left in their wake monumental clean up problems, the mitigation of which in many cases will end up being funded by taxpayers for generations to come. We are getting all too familiar with the plot for this movie, the privatization of profits, and the socialization of losses.	FIN01
17324	... it doesn’t matter what promises and guarantees Polymet makes. With the best of intentions there WILL be serious mishaps. ... We MUST have in place an independent oversight organization with real teeth, really big teeth. We cannot rely on industry to police itself and do the right thing...One suggestion I have is that Minnesota law surrounding environmental damage be revised, such that evidence showing that adequate steps to minimize environmental damage were either not taken or were ignored become CRIMINAL offences, and, if proven, will result in significant jail sentences.	NEPA15
17325	In the engineering world, there are many techniques that have been developed to minimize risk and uncover potential sources of failure... One such widely established technique is known as “Failure Modes and Effects Analysis,” or FMEA ... it would seem prudent to insist on completing and publishing such analyses on all aspects of the proposed Polymet project. ... This [would] provide evidence to the general public that there has been serious and deliberative efforts to failsafe the project, [and] provide a framework for developing “financial assurances.” ... “Adaptive Management” ... is not in my opinion a demonstration of adequate planning to address future as yet unidentified problems. This is MBA speak for we did a lousy job of planning and we will figure it out on the fly as we go along.	FIN05, FIN08, FIN12
17328	Minnesota needs to insist that... we will have an independent authority with adequate powers to oversee all activities which might occur at the Polymet or similar operations should they be approved, and that this authority has the power to shut down operations which have the potential to harm worker or community safety, or cause unpermitted environmental damage. And along with this cessation in operations, this body should have the necessary resources available to immediately authorize and begin any necessary mitigation measures at Polymet’s expense.	PER24
17330	approval for the Polymet project should only be given if ...There is a well-demonstrated need for the minerals that will be recovered during the planned mining operation.	NEPA02
17332	approval for the Polymet project should only be given if ...The projected economic benefit exceeds the cost of long term effluent treatment and any costs associated with future “environmental events”.	SO01
17333	approval for the Polymet project should only be given if ...All long term treatment and contingency expenses will be at the expense of Polymet and its investors or successors, and will not be presented to future Minnesota or Federal taxpayers.	FIN01
<b>Sender Name (Submission ID)</b> Jim Cashman (42811)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jim Cashman (42811)		
7127	I would like the following issues addressed before approval is granted for the project:1.Where does the 100 mile swamp drain? Does it drain into the BWCAW? What plans are in place to prevent pollution from going into the BWCA?...4.As we all know, catastrophes happen. What plans are in place if we get a 500 year rain? If a pump fails?	PD22, PD38
7131	I would like the following issues addressed before approval is granted for the project:...2.There is talk of a land swap with Northmet draining wetlands at the site and swapping other wetlands are the wetlands the state is receiving the same quality?	WET14
7135	I would like the following issues addressed before approval is granted for the project:...3.No[r]thmet will be burning coal to power the plant. What type of scrubbers will be used to minimize the CO2 going into the atmosphere?	AIR01
14425	I have read numerous articles online and in the Star Tribune about the proposed Polymet mine and cannot fathom the idea of having to mitigate water pollution for 200 plus years. Our lakes and rivers area cherished treasure here in Minnesota.	WR195
<b>Sender Name (Submission ID)</b> Jim Ferstle (43373)		
12282	If some company proposed drilling under Lexington Pkwy, for example to bring out some precious metal resource there and tried to justify it based on “creating jobs,” or mining the product in the US rather than having some other country grab the profits from this exercise it would be dead on arrival, as they say about doomed legislation in the legislature.	SO02
12285	any company promising to pay “costs” of cleanup is something goes wrong is akin to the proverbial huckster joke about selling somebody worthless swampland in South Florida.	FIN01
<b>Sender Name (Submission ID)</b> Jim Fitzpatrick (58094)		
19999	The SDEIS does not reveal the levels of contamination that will be placed into the HRF nor does it admit that this highly toxic dump will leak, even if it is lined.	HAZ02
20000	The SDEIS is full of holes.	NEPA09
20003	The SDEIS says there are no fractures of underground bedrock at the site. I saw a map built by Minnesota History Society that shows the site is riddled with fractures...These fractures will allow onsite pollution to get into the ground water.	WR010
20026	Wetland impacts are unacceptable. 913 acres of direct loss, 7531 acres of indirect impact = 8264 acres of wetland damage. The study of hydrology at the site is inadequate. There is an under estimate of the Partridge ground water base flow. It should be 200 to 300% higher. This is the largest Wetlands destruction project ever proposed in the U.S Army Corps of Engineers Region.	WET23
<b>Sender Name (Submission ID)</b> Jim Foti (43495)		
15540	Unlike the desperately poor areas of the United States and the world that embrace extraction projects, Minnesota is fortunate to have the choice to invest in its future in more economically and environmentally sustainable ways. Let us not conduct this massive science experiment in our beautiful north woods.	NEPA15
15541	I ask that the comment period be extended to 180 days....	NEPA07

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Jim Foti (43495)	
15542	One need only be the most casual student of business or history to understand the likelihood of a corporation following through on an environmental responsibility (such as treating the water flowing toward the Great Lakes) for more than a few years after its profits have been made.	FIN01
<b>Sender Name (Submission ID)</b>	Jim Houlihan (18087)	
3215	Based on the mining industry's record of environmental improvement over the years and process changes and all of our aligned interest in both living here and working here, we should move forward with confidence that all members of our community, both industry and environmental communities, will operate and can support PolyMet in a responsible and ever-improving manner.	NEPA16
<b>Sender Name (Submission ID)</b>	Jim Howitt (36518)	
9954	we do know from it that PolyMet is planning over 500 years of pollution for 20 years of mine operation. This is unacceptable. The mine should not be permitted unless much greater pollution controls are planned for.	PD01
<b>Sender Name (Submission ID)</b>	Jim Hussman (1773)	
531	It appears to me that the land offered by PolyMet in exchange is of higher quality than the land they will be acquiring adjacent to the NorthMet property. The exchange does not have any significant negative effects on the Superior National Forest.	LAN11
<b>Sender Name (Submission ID)</b>	Jim Koepke (7156)	
493	Rather than use the tailing ponds, which leak, why not use one of the open taconite pits, which are below ground level. This will keep the sulfur below ground level and will not runoff onto surrounding land.	ALT10
<b>Sender Name (Submission ID)</b>	Jim Kultala (47836)	
17334	environment is worth more then the damage caused my mining the minerals	SO01
<b>Sender Name (Submission ID)</b>	jim lassi (46627)	
9185	I am convinced that these companies have developed the technology, such as reverse osmosis that will insure a safe operation.	PD28
9188	Base on the SDEIS, I am confident that the impacts to the land, air, and water will be minimal.	PD28
9191	he economic benfit of such a development far outweigh any potential negative affects. PolyMet can mine these minerals in an environmentally sound manner that creates hundreds of jobs that can support families that will hopefully locate to my community to booster our economy.	SO10
9196	PolyMet can operate safely. Approve the permit. We need to strengthen our economy in our locat communities and across the state.	SO10
<b>Sender Name (Submission ID)</b>	Jim Melander (54663)	
17909	PolyMet is a sham set up by larger companies so that when the polluted mess is left to the citizens of Minnesota, they can file bankruptcy and walk away.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jim Melander (54663)		
17910	Minnesota Power is the biggest carbon polluter in northern Minnesota. They make tons of money burning fossil fuels to make electricity. PolyMet would provide them the opportunity to make money and to increase their rate of pollution.	PD39
<b>Sender Name (Submission ID)</b> jim or bev (5960)		
1952	I cannot believe the delay in granting a permit, [and] eight or more years and millions of dollars spent	PER34
1953	we in northern Minnesota need the jobs and tax revenue that this project would provide.	SO10
<b>Sender Name (Submission ID)</b> Jim Sandy Wolfe (15349)		
511	My review of the Full SDEIS did not find anything that addresses the issue of enforcement actions for violations of environmental quality standards and criteria. ... A clear plan of actions ... are equally critical to maintaining a focus on safe operations. I did not find any wording in the SDEIS that would trigger the shut down of mining operations in the event that environmental quality standards are violated.	PER06
557	The fact that some corporate entity might be liable for remediation costs will be cold comfort once damage is done, and those costs may not be sufficient to deter poor oversight of operations.	FIN05
558	This form of copper mining will generate waste that is much more toxic than existing iron mines	PD27
559	I ask that Minnesotans' concerns for our shared environment be taken more seriously than I find them to be in this SDEIS. ... If this new kind of mining is permitted, then the consequences of harming the environment need to be clearly stated.	PER06
562	the outsized chance of environmental damage from this form of mining during operation and long after mining stops and the subsequent damage to the existing tourism economy almost guarantees that the costs to Minnesotans will outweigh the benefits.	SO01
<b>Sender Name (Submission ID)</b> Jim Satterstrom (20112)		
1736	The area needs jobs and this project will bring jobs that will allow family's to stay in the area.	SO10
<b>Sender Name (Submission ID)</b> jim sulerud (43083)		
14988	The land exchange ... is a forfeiture of the public wealth and right. In this document there is no public purpose stated for the land exchanges, per se. Further, while your Executive Summary states a foundation for prohibiting this project as proposed, "allowing private surface mining would be inconsistent with USFS legal mandates for acquiring and managing these lands," there is no guarantee that the exchanged lands will be managed by these same mandates.	LAN02
14989	There is no rationale proposed in the EIS that there is an obligation ...on the part of the public, or its government, to yield anything that it holds, in the face of a private mineral rights ownership. ...The State should hold to a position of NO risk taken on by the citizens and its government. Instead, the document details mitigation of risk, and weak discussions of probability and extenuations, that gives evidence that public risk is assumed.	LAN02
<b>Sender Name (Submission ID)</b> Jim Suttie (20052)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jim Suttie (20052)		
1699	Who knows whether they will pay enough to cover the costs of clean-up? No one knows how long it would take or how much it will cost? I don't trust that they won't just mine for 20 years, then shut the operation down and we will be responsible for dealing with the aftermath.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> JIM VOYTILLA (43028)		
13827	Pollution prevention at the crushed rock refuse dumpsite will require: trucking the refuse out of the BWCAW Lake Superior area; selecting an area that is not flawed by geologic features; or construction of a dumpsite that is lined with clay, then plastic or a liner.	ALT13
13835	The SDEIS did not consider the MDNR scoping report that outlined the need for exploring alternative dumpsites. There was no mention of consideration of alternative dumpsites. Why were alternative dumpsites not considered and evaluated?	ALT09, ALT10, ALT13
13838	There are geological flaws in choosing the old LTV tailings basin dumpsite including: underground fractures that allow groundwater to flow unimpeded; the MGS notes existing fractures in the bedrock under the LTV site. Given the predicted water seepage erosional forces, and blasting forces, the fractures will ultimately expand; and considering the 500-year timeframe, leakage from the existing dumpsite and future contribution, there is sure to be future migration and dispersment of pollutants. The LTV tailings basin already leaks.	PD10, WR010, WR012, WR016
13841	Please explain why there is no dumpsite pit lining or grouting proposed.	PD15
<b>Sender Name (Submission ID)</b> Jim Welch (18063)		
3175	And we need people, young people for schools, to keep the area active, to appreciate the area, and being able to go out and fish and do all the things that are fun to do here. We need new jobs to support our community like Hoyt Lakes, Aurora, Embarrass, Ely, Biwabik, Virginia, Mountain Iron, Palo, Gilbert, Markham, Eveleth, and the west range.	SO10
<b>Sender Name (Submission ID)</b> jim wilson (15327)		
469	Our children and future generations will never be able to restore the consequential damage to the landscape, rivers and lakes of this state.	LU06
<b>Sender Name (Submission ID)</b> Jim Young (14978)		
353	The additional, living wage jobs combined with economic impact to the region can not be replicated in this area.	SO02
354	I believe that the Polymet Group has met and surpassed all regulations and guidelines put before them.	PER34
<b>Sender Name (Submission ID)</b> Jim/Janet (44114)		
15031	I am requesting that there be no action taken on the SDEIS for the NorthMet (Polymet project) for the following reasons:The long time frame of up to 500 years for the monitoring of the project and the unknowns of the effect of climate change on the hydrology of the region.	WR195, WR196
15032	sulfide mining is new to Minnesota. There is no good proven technology or long term model to prove that the environmental protection technology will work as described.	PD32
15033	the SDEIS grossly underestimates the amount of water that will flow through the 4.5 square mile site that is unlined and where water seepage through the site. The barriers to bedrock can crack and leak. This alone should disqualify the project.	WR003, WR126

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Jim/Janet (44114)		
15034	The SDEIS contains no credible information about the actual cost of monitoring, maintaining, and replacing the equipment needed to treat polluted water for 500 years or more. It provides no details about the nature or guarantees of a financial assurance scheme that would remain viable for 500 years, yet it does acknowledge, disturbingly, the possibility of events such as “unanticipated liabilities” and “failure or limitations on the ability of third parties to pay.” It does not attempt to explain how a corporate entity could realistically be held accountable over such an absurdly long period of time.	PD22, PD25
15035	even though the SDEIS admits that water pollution will last for a minimum of 500 years, its financial assurance section is an exercise in generalities. The actual cost of water treatment, monitoring, maintenance, repair, and reclamation is completely unknowable. ... The Grand Portage Band of Ojibway concluded that PolyMet’s numbers are vastly below the actual amounts required. The Grand Portage Band calculates that the minimum amount that should be set aside for financial assurance at the outset, assuming a 3% return on the amount, is \$90.5 billion.	FIN05, FIN08, FIN11
<b>Sender Name (Submission ID)</b> jkohnen (46934)		
10864	The Polymet mine could continue to pollute our waterways long, long, long after any benefit is garnered from the mine. There is NO WAY to guarantee the waterways of Minnesota won't be polluted long after the mine has closed and Polymet no longer exists.	WR115
10865	The number of sustainable jobs is minimal as compared to the long term expense. It is very short sighted thinking to allow this mine.	SO01
<b>Sender Name (Submission ID)</b> Jo Morse (38596)		
14057	My husband and I are both tech workers who have chosen to relocate to and live in Minnesota because of the wonderful outdoor recreation opportunities in the Arrowhead region...I think that the state of Minnesota will lose people like us if Polymet Mining is allowed to pollute the BWCA and that will ultimately affect the state's ability to attract and keep educated people	WILD02
<b>Sender Name (Submission ID)</b> Joan Beard (54849)		
19020	What company/corporation/business concern has a track record of keeping its promises 500 years?...Especially after what they've wanted has been taken/exploited/utilized for company gains.	FIN01
19023	...you would allow [mining] ...for 20 to 50 jobs? Lasting 20 years? Have you forgotten that tourism is the main economic engine of Northeastern Minnesota?	SO02
19024	...you would allow a mining practice with the potential to ruin groundwater -- which runs laterally for miles underground! -- ...Have you forgotten ...that our watershed is Lake Superior? -- One of the largest fresh water bodies in North America on a planet where only 1 to 3% of water is non-saline?	WR111
19028	Why is it okay for Polymet to extract minerals using a process you know will contaminate freshwater systems for many years to come...for copper which can be recycled?	NEPA06
<b>Sender Name (Submission ID)</b> Joan Christensen (9287)		
13721	•The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Joan Gunderson-Palmer (10541)		
555	I wish to urge you to reject the PolyMet NorthMet SDEIS on the grounds that the project is likely to cause irreparable damage to our cultural and natural resources as well as result in violations to the treaty that the US made with the Chippewa Bands of Ojibwe people.	CR01, CR05
572	damage may be done to Wild Rice Harvests which would have a detrimental effect on the Ojibwe and many other Minnesotans.	CR01
573	While I appreciate the actions PolyMet proposes to mitigate the potential harm that may be done by the project, I do not believe they are substantial enough to truly prevent or account for the damage that could continue for hundreds of years and more after the project closes.	PD01
<b>Sender Name (Submission ID)</b> Joan Mork (58027)		
19853	We live right near the (truly) Great Lake. There are no benefits greater than its beauty & wholesomeness. Do not let sulfide ore mining compromise this treasure.	LU04
<b>Sender Name (Submission ID)</b> Joan Osgood (58035)		
19828	It will leak. Loss of Tourist Economy	SO02
<b>Sender Name (Submission ID)</b> Joan Scully (43988)		
7117	Our precious wetlands, our rivers and streams, will be adversely affected by mercury, arsenic, and other toxic metals...	WET24
7174	it may be necessary for the animals, fish and birds to be instructed on how to keep away from the huge toxic 'ponds' that will require monitoring for the next "500 years" (as far as the company's report would go) or, more likely, forever.	WI04
7179	Tourism would suffer if this mining operation were approved. The number of jobs related to tourism is much higher than are jobs related to mining. ... A few hundred jobs for 20 years sounds good to Minnesotans who need to support their families, but there are other ways to create better well-paying jobs for the northern part of our state.	SO02
15057	Native populations' tribal rights would be violated if this mining project goes ahead, and their cultural practices and economic livelihoods would be seriously compromised; some would be terminated.	CR01
15059	We count on the DNR to protect the state from perpetrators of dangerous money-making schemes that will harm our state.	PER03
<b>Sender Name (Submission ID)</b> Joan Sutliff (44053)		
15052	I ask that you deny the proposed plan from going through and agree that much more work is need to determine a smarter course of action.	PD01
<b>Sender Name (Submission ID)</b> Joanie Davis (42957)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Joanie Davis (42957)	
7185	The SDEIS should be rejected for its ... failure to include ...the affected Tribes who ceded the territory to the United States by treaty in 1854... The Tribes and their technical representative The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) should have been included while developing the scoping document. Had these entities been at the table the underlying testing of current conditions at the LTV site and surrounding waters would have been more rigorous, far-reaching and complete... [and] a completely different look would have been given to the overall scope of the investigation and to the Underground Mining, and No Action Alternatives.	SO04
7188	Wouldn't a closed underground mine offer less risk to this water rich area? Polymet says if they mine underground they won't return enough profit. But...did [Polymet] do in to the cost the number of water treatment plants, pipelines, liners, constant landscaping and re-landscaping to try to keep out unwanted plants in the 'restoration' areas they will have to build and maintain over the 500 years that they will have to be monitoring on this 6000 plus acre site? How can this be a true comparison, if these costs are not factored in?	ALT01
7193	The SDEIS should be rejected because the additional load of another 4.6 pounds per year of mercury to an area encompassing the Great Lakes Basin can not be tolerated by already compromised water, waterways, and natural areas, and people	MERC08
7197	This proposed land use will require "we the People" to monitor the contamination and treatment of our water in perpetuity...Do the State of Minnesota, the MDNR, the MPCA and other entities that will have to monitor, and monitor the monitors for a "minimum of 500 years" make enough money to cover this monitoring?	FIN01, FIN05, FIN11
7246	It appears from provided maps, that the proposed PolyMet "mine site" is but one of many copper nickel deposits in the Duluth Complex. The deposits stretch all the way up the edge of Superior National Forest, into the forest and up to the Boundary Waters Canoe Area Wilderness, suggesting that watersheds on either side of the nearby Laurentian Divide will be affected... Reject the SDEIS because it does not contemplate the entire scope of environmental disturbances and far-reaching potential disturbances of other mining actions.	CU02, CU04
7253	The EPA Rejected the first draft of the EIS. This draft should be Rejected as well, because it fails to address financial assurances. PolyMet has stated it was not able to obtain Insurance; it is too new a company. Much of PolyMet's start up money is apparently from a deep-pocketed private Swiss company called GLENCORE.	FIN02
7257	Chapter three mentions off-site disposal of residual solids more than once. What does this mean? Where is this "off-site" located? Not in the glossary. Reject the SDEIS.	WR145
7259	As the Tribal Cooperating Agencies point out, in Appendix C, "inadequate information on current water quality and base flow, makes future water quality impossible to predict." The assumptions made for the groundwater quality are based on models that were repeatedly called into question by the Tribal cooperating agencies. Why were the tests and models not re-run using the Tribal/GLIFWC mode, and also as requested at the Dunka Road site?	WR003, WR052, WR071, WR086, WR091
7262	Why are the waters, swamps and marshes, and soils along the eight-mile shipping route NOT being carefully tested, and their current quality included in the permit? Monitoring after the fact does not give you a base model	PER09, WR071
7264	An underground mine, if a mine is to be contemplated for permitting would be the only possible option.	ALT01
14967	The SDEIS should be rejected because it condones re-use of an old leaking, existing basin without first emptying it, lining it and putting in collection facilities so that leaking water can be sent to the on-site water treatment facility	PD07, PD10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Joanie Davis (42957)		
14968	...deliberately adding mercury to our already degraded resources is unconscionable. The U.S. Forest Service and the MDNR should Reject the SDEIS because it seems bad practice, if not illegal, to destroy or contaminate a property that “we the people” purchased for the safe use by all for generations to come.	MERC22
14969	The Proposed Action will include the destruction of high quality forest and wetlands, and the 100-mile swamp, and because the 100-mile swamp (though not depicted as such in the SDEIS) actually straddles the Laurentian Divide, polluted water will flow south to the St. Louis River and Lake Superior but north as well to the Boundary Water Canoe Area Wilderness (BWCAW).	WILD02
14970	The U.S. Forest Service and the MPCA and the USACE should reject the land exchange, and the permits as a bad deal for “we the People”...Could PolyMet and the USFS really believe that exchanging tiny parcels of land scattered throughout the Superior National Forest “eliminates (the) conflict between PolyMet’s desire to surface mine, and the United States citizens’ rights, and the USFS’ rights to the administration of the NFS land?”	LAN04
14971	...at what cost to the land and water... does this exchange and permitting come at? What PolyMet proposes in return for this “right” that they desire and need seems to pale in comparison to the riches they will obtain and the damage they will inflict, the cost of which will be born by all who remain when the mine is closed.	LAN01
14972	With all the potential mine sites all within Ceded Territory and it appears, mainly within the Superior National Forest, why was the Underground option given such short shrift?	ALT01
14973	What happens if something goes wrong even in the early years? Is PolyMet going to declare bankruptcy and stick the rest of us with the bill?	FIN01, FIN10
14974	Of the remaining existing tailings basins leftover from Cliffs Erie and LTVSMC do any of those tailings have the potential to continue contaminating the water? ...Those “Cells” or tailings basins were built many years ago...how can you justify PolyMet using those “Cells” for even their Category 1 waste? Shouldn’t they at the very least, be emptied and lined? Reject the SDEIS for failing to address this additional pollution waiting to happen.	PD10, WR023, WR070, WR126
14975	I particularly feel that disrupting such a large contiguous wetland such as the 100-mile Swamp with its calcareous fens violates Minnesota Statutes 103G.223 of the Minnesota Wetlands Conservation Act, and Minnesota Statutes 84.0895 because of Minnesota’s endangered species law. The MDNR should reject the SDEIS on these grounds	WET19
14978	...the Tribes uncovered a 2007 document that “Further [documents] the high quality and ecological function of this landscape in ‘An Evaluation of the Ecological Significance of the Headwaters Site, Northern Superior Uplands Ecological Land Classification System Section; Laurentian Uplands Subsection Lake and St. Louis Counties, Minnesota, March 2007: “The headwaters Site straddles the continental divide, with water from the Site flowing both east through the Great Lakes to the Atlantic Ocean and north to the Arctic Ocean....The Site is the headwaters of four rivers: Stony River, Dunka River, South Branch Partridge River, and the St. Louis River, which is the second largest tributary to Lake Superior...”	REF01
14980	Losing and not replacing with like kind within the same watershed is too big a loss for this watershed, and potentially other watersheds. Water comes out from everywhere in the Swamp.	WET03
<b>Sender Name (Submission ID)</b> JoAnn Huss (3454)		
12338	Not only would the area surrounding the mine sites be affected, the water sheds far beyond will be adversely damaged for a long time after the mining is done.	WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> JoAnn Huss (3454)		
12339	My family and many other MN families are very worried about the human health risks that you are entertaining.	HU03
12340	This type of mining will put arsenic, manganese and other contaminants in their drinking water and muercury contamination will happen to the fish in the watershed and most likely far beyond, even into Lake Superior!!!!	AQ05
12341	The research has shown that more than 8,000 acres of irreplaceable wetlands in the St. Louis watershed will be impaired or destroyed IF you say yes!	WET24
13414	Not only would the area surrounding the mine sites be affected, the water sheds far beyond will be adversely damaged for a long time after the mining is done.	WR111
13415	This type of mining will put arsenic, manganese and other contaminants in their drinking water and muercury contamination will happen to the fish in the watershed and most likely far beyond, even into Lake Superior!!!!	WR042, WR107, WR111, WR158
16985	Why would you even consider a business venture that has a 100% rate of environmental destruction to the state of MN?	SO01
<b>Sender Name (Submission ID)</b> Joanna Schlegelmilch (36350)		
3784	The overwhelming point is that the stakes are too high and the sacrifice is too great.	SO01
3786	Diminishing the quality of life for the next 500 years for the economical benefit of one lifetime sounds completely ludicrous!	SO01
<b>Sender Name (Submission ID)</b> Joanne & Larry Spears (42725)		
14360	The sulfur pollution is long-term and devastating to the environment. The promised mining jobs are few, short-term and phantom. The copper extracted is very small. The benefits to Minnesota will be minimal	SO06
14361	The mining company is likely to disappear in bankruptcy leaving no protection against the long-term environmental destruction.	FIN01
<b>Sender Name (Submission ID)</b> Joanne Iskierta (42753)		
14441	As someone who enjoys the outdoors and the beauty that Minnesota has to offer, I am concerned about the long term repercussions of PolyMet plan in copper mining. The lakes, rivers, and waterways help to make Minnesota what it is for all people who live here. I urge caution and future risk-benefit discussion before going ahead.	LU06, WR115
<b>Sender Name (Submission ID)</b> Joanne Kalnitz (38718)		
4518	PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part of the Superior National Forest the largest designated Important Bird Area in Minnesota.	WI02
4519	...sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream.	AQ05

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Joanne Kalnitz (38718)		
4520	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Joanne M Engel (42834)		
7334	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
7334	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	NEPA16, SO10
<b>Sender Name (Submission ID)</b> Joanne Smith (43302)		
11360	Many years ago, I drove with my family through Ontario Canada and was shocked to see the devastation to the environment for several miles surrounding one of these mines...You know very well that we are looking at this kind of destruction of you approve this mine proposal, and there will be destruction that wouldn't be fixed from at least 500 years.	PER35
11363	[My husband and I know] the negative impact that this would have on our famous clear water sources plus the northern Minnesota woods and habitat.	WR111
11666	Not only would [this mine] be destructive to the lives of the people that make this area their home, it would literally decimate the tourism industry along the North Shore and over in the BWCA.	SO02
11672	Our lakes and rivers would be irreparably harmed, as would Lake Superior itself...the source of drinking water for many thousands of people.	WR111
15577	The jobs that we are talking about do not have that kind of economic impact. Yes, there would be construction jobs...but only for a while. As for the miners, as many as want to work, there are jobs already available in the iron mining industry. This is a short term vision for a LONG TERM PROBLEM!Please listen to the conscience of the people on this one. This is not simply a tree-hugger issue! This is the future water quality issue for the State of Minnesota and Wisconsin and also Canada.	SO02
<b>Sender Name (Submission ID)</b> Jodi Broadwell (11260)		
757	I have invested thousands of dollars into my home and I fear that if our waterways become poisoned I will be forced to move and if the proposed mining project turns the Northland into a wasteland and poisons the Minnesota waterways, I imagine no one will want to purchase my home.	WR115
<b>Sender Name (Submission ID)</b> Jodie Prohaska (40777)		
10660	I strongly believe the PolyMet mining proposal requires more time in order to sift through issues regarding the maps.....The topographic maps are not accurate.	PD38
10687	However, I am not convinced that this pollution can be contained.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jodie Prohaska (40777)		
10691	The sulfuric acid will most certainly drain into pristine watersheds. I urge the DNR and stakeholders to look more closely at these maps and require more time to investigate their accuracy.	WR001, WR080
<b>Sender Name (Submission ID)</b> Joe Adler (40131)		
15299	Areas around and near to the BWCAW need to be protected at all costs.	WILD02
15300	All the mining company has to do is declare bankruptcy when they have extracted the majority of the minerals from a site, and all future clean up, if it can even be remediated, becomes the responsibility of taxpayers. This is wrong.	PD01
15301	Minimally, any mining company wanting to mine an area should be forced to put in place an escrow of a minimum of 10% of the value of the deposit in order to have funds available for cleanup. Letting them proceed with a permit, using bad data, is negligence on the part of our public servants.	FIN01
<b>Sender Name (Submission ID)</b> Joe Baltich (18314)		
13042	Ely won't survive on tourism alone. Tourism is one slice of the pie. Another slice of the pie, from what I see in Ely, is mining. It may be a big slice of the pie, it may not. It depends on how you want to look at it, because all businesses wax and wane. They come and go. Mining will have its peaks and lows. So does tourism.	SO02
13044	I want to see mining on the Iron Range. I want to see the opportunity for the people on the Iron Range to have jobs that aren't just tourism.	SO10
13048	We've had oh, many, many years now for mining technology to increase over the years and improve. And I believe in the year 2014 that we have the capability to actually function as an ecologically sound mining institution or area or region.	SO10
13150	Modern mining tech will provide for an eco-sound operation at Polymet along with all the permitting/oversight by MDNR and agencies..	NEPA16
<b>Sender Name (Submission ID)</b> Joe Begich (18315)		
13057	There's nothing wrong with mining and providing jobs if we do it the right way. And from what I can follow and what is clear to me, this company is planning to do it the right way.	SO10
<b>Sender Name (Submission ID)</b> Joe Cherra (14999)		
355	Has anybody researched or even thought to investigate the use of fumerole biotics as a tool for mitigating the sulfur problem associated with sulfide mining? I'm thinking of the deep sea organisms that break down the SO2 and CO3 into oxygen and nutrients to live off of.	ALT17
441	360 full time mining jobs + 600 related jobs for 20 years is going to create almost 1,000 unemployed 40 & 50 year olds in 20 years in an area that has been hard hit, for years, with scarce job opportunities and higher than the state average unemployment numbers.	SO02
442	Even if other mining companies move into the area in the next few years, will they be able to absorb Polymets' unemployed? Will Polymet be paying enough in unemployment compensation taxes to cover these large numbers?	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Joe Cherra (14999)		
448	Polymet proposes to ... provide \$720 million in wages and benefits to 360 full time employees over a 20 year period. ...\$500 million of that projection will go to construction. Subtract that from the \$720 million and the number is closer to \$220 million. \$30,000 in wages looks good until you start deducting the benefits they promise. It doesn't take much to make that good looking job a "slightly better than a poverty level" job for a provider of a family of four.	SO06
450	No corporation ... can guarantee being around that long [200-500 years]. We have to assume that the taxpayers are going to be footing the bill for a clean-up project ranging from \$700 million to \$3 billion ... The EPA estimates the total cleanup cost would exceed \$50 billion.	FIN01, FIN05, FIN10
451	Polymet has a bad reputation in South Africa and South America. They tend to leave messes behind just like U.S. Steel, Reserve Mining and LTV. Can we trust them to live up to any of their promises?	FIN01
<b>Sender Name (Submission ID)</b> Joe Feidt (47259)		
9255	Can you guarantee the pollution from this mine will not reach streams, rivers, and Lake Superior? ...Superior is the cleanest of the Great Lakes. It is our jewel to protect.	GEN01
<b>Sender Name (Submission ID)</b> Joe Folio (7678)		
816	...the SDEIS provides more than adequate coverage of the NorthMet Mining Project and Land Exchange. Water quality, air quality, cumulative effects, closure, etc. are extensively analyzed and studied in the SDEIS beyond the MEPA and NEPA statutes and criteria.	NEPA16
<b>Sender Name (Submission ID)</b> Joe Hochevar (42535)		
2446	I hope the project goes forward with great care taken for the H2O and wild rice.	AQ05, WR107, WR108, WR156, WR157, WR158, WR190
<b>Sender Name (Submission ID)</b> Joe Knaeble (40871)		
10337	Would you please identify the toxicity or danger levels of the 15 million tons of waste rock, the 1.3 million tons of tailings and 313,000 tons of residues? What are the time estimates of how long these 3 outputs would need to be monitored in the designed storage ponds, pits or piles before they would not create pollution problems that would exceed environmental standards if they escape from the pits, piles or storage ponds?	WR035, WR036, WR038, WR060
10341	How would the financial assurances be structured to cover failures that exceed environmental standards while PolyMet is still mining, if they occur decades or centuries after PolyMet has closed the mine or if PolyMet has gone out of business?	FIN01
10347	Is it possible and even probable that to extract metals in a safe, environmentally responsible manner at some point becomes in contradiction with extracting them in an economically feasible manner? To leave it up to PolyMet to define the extent practicable of balancing what could easily be opposing criteria does not seem to be in the public interest nor does it provide protection for the environment in the Cloquet Watershed and for Lake Superior.	SO01
10357	Mitigation measures are designed to avoid or minimize environmental effects to the extent practicable. Does the State of MN or any other governmental body have a say in defining the extent practicable?	PD24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Joe Knaeble (40871)		
10361	How is PolyMet's proposal different from past sulfide mining operations that have become a liability to the public and have done damage to the environment?	FIN01
10363	Problems that exceed environmental standards will occur and when they do it should be solely PolyMets responsibility to clean them up and restore the environment to its original state, or as close as possible as determined by outside sources.	FIN01
10366	How is PolyMet's proposal able to insure their storage piles, ponds and pits will not fail in extreme weather situations?	WR202
10369	The proposed mine is projected to run for approximately 20 years and yet the danger of the by waste created from this project will remain in the area for centuries with the potential of causing serious pollution problems to the entire watershed which includes Lake Superior. If any of the other similar mines being planned in the BWCA/Quetico watershed are permitted and start to operate these dangerous waste products will remain as potential pollution problems for centuries in this international treasure.	WR111, WR115
10395	The Poly Met mine is proposing to operate in an area that is extremely fragile to the very byproduct created and stored, on site, for centuries by PolyMet. It is unacceptable to permit a mine that creates pollution that is extremely harmful to the ecosystem especially when the soil and subsoil of the area are not prone to containment of water borne pollutants.	PER35
10400	Alternative strategies that would create more jobs and permanent jobs by increasing the reuse and recycling of our current stock of copper, nickel, platinum and other semi precious metals from the metals that have already been mined and processed.	NEPA06
13966	Due to the past track record of sulfide mining it seems only reasonable to deny a permit to PolyMet since that track record shows environmental damage occurs and the responsibility of clean ends up being paid for by the public.	PER35
16641	Mitigating pollution problems after they happen is always only partially effective. If there is a pollution incident then damage is bound to occur that cannot be corrected. Mitigation only lessens the damage.	PD01
16642	I did not find adequate research or justification to warrant granting a permit. There was no analysis of need other than a simple statement alluding to the need for copper, nickel and platinum by the world market. There was no mention of the current stock of these metals and if it would be adequate to meet the needs of the world market by alternative strategies that are less environmentally harmful.	NEPA06
<b>Sender Name (Submission ID)</b> Joe Magda (44273)		
11959	We need the jobs, we need the business, I'm in favor of mining	SO10
12051	I'm in favor. We need the jobs, we need the business	SO10
<b>Sender Name (Submission ID)</b> Joe Martin (54196)		
17231	Sure this would create jobs, but it would just be temporary and would cause major pollution our lakes and rivers.	SO01
<b>Sender Name (Submission ID)</b> Joe May (10012)		
8066	When Polymet has pulled everthing out of the ground or it's proven to be a huge polluter, they probably file bankruptcy as so many mining operations have done in the past. WHO will pay for it???	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Joe May (10012)		
9948	When Polymet has pulled everthing out of the ground or it's proven to be a huge polluter, they probably file bankruptcy as so many mining operations have done in the past. If it even could even be cleaned up, WHO will pay for it???	FIN01
10593	Who will pay for the clean up when Polymet has exhausted the resource, then files bankruptcy????	FIN01
16977	When Polymet has pulled everthing out of the ground or it's proven to be a huge polluter, they probably file bankruptcy as so many mining operations have done in the past. If it even could even be cleaned up, WHO will pay for it???. MY answer...the state, us!	FIN01
<b>Sender Name (Submission ID)</b> Joe Nasvik (42894)		
9209	The report calls out a 200 year monitoring period after the mining effort is through. That's simply not possible, hardly any company lasts that long and it wouldn't be realistic to think that an adequate amount of money would be deposited to cover any future problem.	FIN05
9214	But aside from that, sulfur compounds are particularly dangerous because they can easily become airborne, quickly becoming sulfuric acid—harmful to humans, flora and fauna.	VEG06
<b>Sender Name (Submission ID)</b> Joe Nelson (43816)		
10568	Sure there are negatives to the environment but what about our economy and the jobs that we are giving away.	SO10
14954	As far as the global environmental impact, most countries have much worse environmental regulations and will cause a larger impact to the environment if they produce these metals.	PER34
<b>Sender Name (Submission ID)</b> Joe Padden (44704)		
7231	Dust is sure a problem in mines what dust control for sulfides	AIR07
<b>Sender Name (Submission ID)</b> Joe Quincy (58138)		
20004	The single point that this is a 500 year agreement along makes it an impossible decision for us to make; there are concerns for the next 20 years as regards water, air and soil quality – how could Polymet possibly believe themselves competent to predict/mitigate effects for the next 500 years?	FIN01
<b>Sender Name (Submission ID)</b> Joe Scherer (18118)		
13496	I fully believe that our government agencies will make sure this area will remain intact and pure.	NEPA16
13497	We can having mining. We can have tourism.	SO10
<b>Sender Name (Submission ID)</b> Joel (41727)		
3240	Jobs come and go. Our planet does not. This mine would set a negative precedent for our state.	SO01
<b>Sender Name (Submission ID)</b> Joel Bryan (14923)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Joel Bryan (14923)		
259	I do not believe current mining techniques can safely remove the copper and nickel without causing great harm to the environment.	PD32
<b>Sender Name (Submission ID)</b> Joel Hoffman (44764)		
7652	Based on the NorthMet SDEIS, the proposed project would result in large-scale disruption and degradation of forested wetlands in the headwaters of the St. Louis River.	WET24
7659	The project also represents a serious threat for heavy metal leaching into surrounding ground and possibly surface waters to an area that is already recognized by the state for persistent mercury pollution.	MERC16
7682	the project will severely impact about 6,000 acres and potentially impact about 20,000 acres of wetlands, including pristine wetlands and high-value forested wetlands whose functionality could be severed degraded by changes in hydrology associated with the mining operations.	WET24
7683	the mitigation target is far less (<2,000 acres), and would not necessarily restore the lost functionality to headwater streams or to the St. Louis River watershed.	WR114
7694	The resultant changes in hydrology and ecological function of these wetlands represent a significant impact to the watershed, and would add to the cumulative stress placed on the St. Louis River.	WET24
7698	The wetland loss is unacceptable at this scale, especially in light of the large expense committed by the federal and state government to restore wetlands in the lower reaches of the St. Louis River.	COE01
7706	As the executive summary notes, mercury pollution in the St. Louis River is of particular concern and potentially represents a serious public health threat.	HU03
7720	[The water quality] models are reliant on two critical assumptions: a lack of groundwater leaching from the pit and tailings basin, and successful water treatment. It seems likely that at least one failure in the applied technologies will occur during the operational period of the mine. This potential is not evaluated in the SDEIS.	PD29, WR010, WR128, WR129
7722	the mine pit will require a large load of electrical power, likely causing an increase in power generation in the region. Presuming the power will come from a coal-fired power plant, this would likely add to the atmospheric mercury loadings to the region.	AIR02
7725	the SDEIS details substantial environmental impact to the region but fails to adequately consider the full effect of these impacts.	NEPA15
7738	the executive summary presents an oversimplification of the environmental impact of the mine	GEN01
<b>Sender Name (Submission ID)</b> Joel K Hoelz (54890)		
18823	I am against sulfide mining in our beautiful northeastern Minnesota lands. I believe likelihood of permanent damage to our lands are great! We should avoid opting for quick gains opposed to long time damage.	SO01
<b>Sender Name (Submission ID)</b> Joel Mamedov (17330)		
1970	Yes, [this project] will create some jobs. But, the people who earned some money will spend that money to their cancer treatment or treatment of their children.	HU03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Joel Roberts (42887)	
17620	...no explanation is given for the choice of [the] particular values of hydraulic conductivity for the cutoff walls [in the SDEIS].	PD29
17621	PolyMet is modeling only a best---case scenario, because it does not allow for the possibility of less than optimal performance of the cutoff wall. It is unrealistic not to plan for other contingencies.	PD29, WR130
17622	It would appear, however, that many of the recommendations in EM 1110---2---1901 have been disregarded in the SDEIS and the references.	PD07
17624	Difficulties posed by the local geology, and the failure to follow the guidelines in the USACE Engineer Manual are likely to significantly reduce the percentage of tailings basin seepage that could be captured by the proposed Flotation Tailings Basin cutoff wall. The modeling of water quality in the Embarrass River watershed should take this situation into account by incorporating a probabilistic approach, using a wide range of seepage capture percentages.	PD07, PD08, PD29
17625	As a more feasible alternative, the modeling of water quality in the Embarrass River watershed must be redone under more realistic assumptions. This would involve a probabilistic approach. In particular, the assumptions about the seepage capture rate must be adjusted to cover a sufficiently wide range of assumed seepage capture rates...the modeled range of groundwater seepage capture rates should extend downward...perhaps to 35% or 40%. If the modeling is set up so that the seepage capture rate is not an input variable, then there must be a sufficiently robust probabilistic modeling of the variables that determine the seepage capture rate.	PD29, WR022
17626	The MinnTac tailings basin experience indicates that the modeled range of groundwater seepage capture rates should extend downward at least to 50%. In order to have a more complete picture, the range should extend somewhat further downward, perhaps to 35% or 40%.	PD03
17627	If the modeling is set up so that the seepage capture rate is not an input variable, then there must be a sufficiently robust probabilistic modeling of the variables that determine the seepage capture rate.	PD03
17628	A computer simulation of a natural process or engineering design cannot be expected to produce realistic results if it is based on unrealistic assumptions. The modeling process that is used must be based on assumptions that can be verified, and the modeling must include a range of values for each parameter that is wide enough to be realistic.	PD29
17630	PolyMet claims that 100% of the surface seepage will be collected. This is an unrealistic claim, and there is hardly any explanation at all relating to their plan for doing this	PD03, WR017, WR018, WR021
17633	Therefore, the SDEIS groundwater modeling must be re---done in order to provide estimates of the probable exceedances for individual pollutants.	PD03, WR059, WR060, WR173, WR177
17634	It is likely that the increase in predicted surface water pollution also would be quite substantial under more realistic assumptions. Therefore the SDEIS surface water modeling also must be re---done to reflect a range of values for the escape of surface seepage.	PD03, WR056, WR093
17635	Since the water quality modeling was based on unrealistic assumptions, it needs to be redone with the assumption that important parameters – especially the hydraulic conductivity of the slurry wall – are probabilistic parameters rather than determinate parameters.	PD29
17636	The range of values for the hydraulic conductivity of the slurry wall must reflect actual site conditions, including accurate information about the geology of the site. Realistic allowances also should be incorporated relating to the escape of surface seepage, to provide a more complete picture of the effects of Tailings Basin seepage.	PD07

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Joel Roberts (42887)		
18369	In the case of the Flotation Tailings Basin, the claimed value of the hydraulic conductivity for the cutoff wall is smaller than the average value cited (in Table 3-1 of PolyMet 2013f, Att. C) for the nearby surficial deposits by a factor of 2x10 <sup>-5</sup> (or 0.00002)...no explanation is given for the choice of these particular values of hydraulic conductivity for the cutoff walls.	WR072
18378	[there are] several sources of uncertainty in the performance of the slurry wall, and therefore in the overall performance of the seepage containment system. Accordingly some form of probabilistic modeling should be used instead.	WR022
18385	PolyMet's assumption of the capture of nearly all seepage may have been necessary in order for the modeling to show compliance with water quality standards, and conceivably could be an unstated explanation as to why the modeling was deterministic rather than probabilistic.	WR022
18386	The bedrock is granite. This effectively rules out the possibility of keying the slurry wall into the bedrock. The presence of the boulder-rich Rainy Lobe till under the surface also presents difficulties for slurry wall construction. In particular, if a large boulder is encountered during the excavation, it could prevent the trench from even reaching the bedrock.	PD07
18387	Since everyone agrees that boulders and cobbles are present at the Mine Site and also at the Plant Site, it is not dear why PoiyMet now has chosen to follow a slurry wall approach which they rejected in 2007.	PD07
18389	There are discrepancies among the various descriptions of this construction in the SDEIDS and the relevant references. These should have been resolved before the SDEIS was released.	EDIT01
<b>Sender Name (Submission ID)</b> Joel Vlaminc (40742)		
6676	I don't want our state's water sources being polluted for generations to come. Without a plan in place for proper clean-up, I'm concerned of the irreversible damage that will be done to the surrounding ecological systems.	HU01, WR115, WR195
14045	For the benefit of current and future Minnesota residents, please insist on a more thorough plan for keeping the waters safe and clean. If it isn't possible or feasible to keep the waters clean with this mining project, then it shouldn't be done.	NEPA15
<b>Sender Name (Submission ID)</b> Joel Weisberg (45191)		
11195	It is especially unrealistic to expect that the polluted water flowing from the site will be environmentally monitored and treated "in perpetuity," or even "for 500 years," which would be required according to numerous studies (e.g. DNR Fish and Wildlife).	WR037, WR129
11197	The SDEIS environmental study suggests a number of practices that would be harmful to the environment, including dumping the enormous amount of wastes into unlined pits that would leach dangerous chemicals into the water, harming streams, wetlands, and fisheries; while containing insufficient detail in other cases to determine whether or not the proposed practices would be harmful.	AQ05
<b>Sender Name (Submission ID)</b> Johann Chemin (9752)		
292	500 years of pollution legacy is not worth 20 years of labor	SO01
1380	Who will foot the bill for the 500y of cleanup when the company folds (because it will, like everything): Minnesotans!	FIN01
1381	There is more money and jobs to create by promoting tourism than by polluting. Also, who will want to visit the area if it is polluted, what are going to do the people working off tourism?	SO02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Johannes Donaubauer (46097)		
10793	...everybody who trusts polymet should consider the fact that as fast this company appeared to make that amazing deal, as fast it will disappear if it comes to cleaning up the mess...	FIN01
<b>Sender Name (Submission ID)</b> John (36772)		
14412	Exposing sulfides in a moist environment produces acids, which acids in the water, besides being polluting in and of themselves, also leach heavy metals from the surrounding rock, which poisonous metallic compounds also enter the runoff waters. And the process continues as long as the exposure remains. i.e. for at least centuries, until all exposed material has been fully extracted.	WR001
14413	Containment [of acid runoff and heavy metals leaching in sulfide mining], even for relatively short time spans is difficult and expensive, if not impossible, and over the many years of continued hazard the possibility of continuous containment is merely wishful thinking.	FIN01, WR037
<b>Sender Name (Submission ID)</b> John & Betsy Flaten (24)		
1779	We believe the ecological and environmental degradation from Polymet's Northmet mine, were it to be permitted and operate, would become pervasive throughout Northeast Minnesota, not just within the St. Louis River watershed.	CU11
1780	We have grave concerns with fugitive releases into the air of particulate from the vast waste rock the mining operations would produce which, in turn, will result in increased acid rain emanating from the mine sites in all directions.	AIR10
1782	We believe remediation of this environmental impact is not adequately addressed in the SDEIS.	PD29
1788	the references above to 500 years of needed water table remediation is simply using Polymet's time frame... the needed remediation would be perpetual. The SDEIS does not explain how these remediation costs can be determined and secured.	FIN01, FIN05
1790	the net value of the copper, nickel and other minerals at the time of extraction from the proposed Northmet mine can never be great enough to pay for the cost of perpetual remediation.	FIN01, FIN05
1811	Undeveloped cooper and nickel resources exist elsewhere in the world in arid and semi arid environments. The copper and nickel resources in Northeast Minnesota's water rich environment may be needed some day, but, we believe, not for the foreseeable future	NEPA03
<b>Sender Name (Submission ID)</b> John & Debbie Woerheide (10407)		
532	We certainly hope that ore processing at the Polymet mine site is not part of the plans, because no matter how much scrubbing of the air takes place, the prevention of air pollution is impossible.,	AIR11
534	If there is even the remote possibility of water pollution as a result of the Polymet open pit metals mine, we are totally opposed to such a development.	WR195
538	The creation of jobs, and economic influence of such a development is so far over shadowed by the possibility of water or air pollution that the development can not be allowed to proceed. There is just too much at stake here in the Arrowhead Country.	SO01
<b>Sender Name (Submission ID)</b> John A Gruber (42859)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> John A Gruber (42859)		
8837	I'm sure many citizens are expressing disapproval of the obvious threat [from the Polymet project] to our water and boreal woodland environment. The leaching of mercury from waste rock that is far beyond our water quality standard; the questionable scientific calculations of water movement carrying sulfates; the inconceivable amount of years that contaminated water must be treated by an expensive mechanical process; the enormous potential loss of wetlands (how is that 'mitigated'?) which naturally help keep the ground water, and Lake Superior, 'clean'...these are	MERC20, PER26, WET05, WET24, WI02, WI03, WR005, WR035, WR126, WR189, WR195
8837	I'm sure many citizens are expressing disapproval of the obvious threat [from the Polymet project] to our water... The leaching of mercury from waste rock that is far beyond our water quality standard; the questionable scientific calculations of water movement carrying sulfates; the inconceivable amount of years that contaminated water must be treated by an expensive mechanical process..these are serious issues.	MERC20, WR005, WR035, WR126, WR189, WR195
8842	The State of Minnesota has declared a pro-active sentiment and established greenhouse gas reduction goals for 2015 and 2025...It is calculated that Polymet would contribute 0.44% of our state's greenhouse gas emissions in exchange for employing approximately 0.012% of Minnesota's workforce (assuming the jobs promised to Minnesotans actually are given to Minnesotans). How does 'permitting' this industry comply with our state's stated goals, goals which are already unlikely to be met?	AIR01, PER32
8842	The State of Minnesota has declared a pro-active sentiment and established greenhouse gas reduction goals for 2015 and 2025...It is calculated that Polymet would contribute 0.44% of our state's greenhouse gas emissions in exchange for employing approximately 0.012% of Minnesota's workforce (assuming the jobs promised to Minnesotans actually are given to Minnesotans). How does 'permitting' this industry comply with our state's stated goals, goals which are already unlikely to be met?	AIR01
<b>Sender Name (Submission ID)</b> John and Barb Bottger (42277)		
6921	The [environmental] cost is just too great.	SO02
14255	This proposition is neither environmentally or financially feasible. It is a huge wake up call to Minnesota to support U.S. companies that are engaged in technology using renewable resources.	NEPA15
<b>Sender Name (Submission ID)</b> John and Karen Legenhausen (40804)		
14013	Encourage recycling electronics to get the minerals we need for our greedy lifestyle and save our waters.	NEPA06
<b>Sender Name (Submission ID)</b> John and Kay Buzza (4782)		
1893	Any such mining for which the clean-up might take hundreds of years is unacceptable.	WR195
<b>Sender Name (Submission ID)</b> John and Patricia Telfer (54841)		
18947	I cant remember any mining project that didn't require the tax payers to pay for the cleanup after the goodies were gone....Who will be around for 100-500 years to maintain the site? Experience says tells us it won't be PolyMet mining.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> John And Robin (43557)		
15521	I'm not sure that all angles have been explored, such as effects on our health, particularly cancer.	HU01, HU03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> John And Robin (43557)		
15523	I am worried about the toxic pollution (sulfuric acid) that the mine will create and the long-term effects of this pollution, such as the ongoing costs to generations of Minnesotans for its clean-up, as well as the damage to the animals and plants in the area.	VEG06
15525	I think it is a foolish way to use our resources in this way, since tourism is a huge industry for northern Minnesota. Destroying natural resources for only 350 jobs doesn't seem wise. The relatively small number of jobs created does not off set the 200 plus years of toxic run off and clean up that will need to be done to mitigate the damage th emine will do.	SO02
15526	What about water quality to nearby rivers and eventually to Lake Superior?	WR111
<b>Sender Name (Submission ID)</b> John Anderson (15726)		
11419	I believe that the MN PCA, EPA, and USACE should not issue water quality permits. It is not proveable that impacts to water quality can be avoided or mediated should Polymet mine be developed.	GEN01
11422	The principle that a given project should not proceed because of potentially adverse public health issues applies in this case	HU03
<b>Sender Name (Submission ID)</b> John Badger (15644)		
11231	How will the tailing pond protect ducks from landing on it?	WI01, WI04
11239	The study indicates no nesting eagles but a local person who lives there says there is. Is there endangered plants or animals living there?	WI01
11242	I don't see any plan for tailing pond failure. Needs to be addressed.	WR132
11244	Also put in EIS about planned expansion limits due to existing site limitations and address new mines accumulative effects.	CU02
<b>Sender Name (Submission ID)</b> John Becker (43589)		
12441	What is the breakdown of the cost analysis used to arrive at the figure of \$200 million for the 200 to 500 year (perpetuity) water monitoring and treatment cost? The DNR will also need to explain how they are going to manage those funds for "perpetuity".	FIN01, FIN05
12444	Since this project is a site renovation, becoming a mining operation, and reverting to a site remediation, why is there no mention of any effort to achieve a LEED certification? Not only would LEED certification demonstrate a commitment to the environment, it would serve as an example of how the mining industry and environmentalists can work together in a non-adversarial relationship.	PD39
15486	Going forward, the Partridge River analysis should be redone prior to any permitting process. Without it, that oversight may be indicative of the way the entire project will be managed.	WR003
15487	Current climate models indicate a warming climate trend; what criteria will be used to address the remediation of the landscape, not just when the mining project is finished and shutdown in 20 or 25 years, but so the landscape plantings are viable at the at 50 year mark and beyond?	PD22
15488	If severe drought were to affect the region during the time span of the mining project, depleting the available water resources required, what is the secondary resource and how does that affect the existing treatment plan? ...Conversely, how is excessive groundwater runoff to be managed in the event of two consecutive years of exceptional snowfall with one 500 year rain deluge in between?	WR180, WR181, WR188

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Becker (43589)		
15489	Why has no effort been made to incorporating solar and/or wind energy produced on site, as well as a minimum requirement for the use of Minnesota produced bio-diesel?	PD39
15490	Since the MPCA announced yesterday, March 12, that further studies and analysis are necessary before new sulfate standards can be applied, it would be in everyone's best interest to delay the permitting process for the PolyMet project until those standards are enacted, so that PolyMet can alter their manufacturing processes accordingly.	PER10
<b>Sender Name (Submission ID)</b> John Brainard (40096)		
6457	1) Revise the SDEIS to clearly state how long the need for active water treatment (reverse osmosis or other mechanical treatment) is predicted, according to the models used in the SDEIS. Extend the water model timeline as far as needed to show when all pollutants would meet applicable water quality standards and provide the public with a clear statement of the best available prediction for the time frame of mechanical water treatment.2) Revise the SDEIS to address Minnesota Rules 6132.3200 and clarify how the post-closure activities described in the mine plan are consistent with the mandate that the closed mine site be "maintenance free."	PER04
<b>Sender Name (Submission ID)</b> John Buschette (18230)		
13573	it's really short-sighted to try to create 50 to 100 jobs or even a couple hundred jobs that will last for 20 years and then destroy the environment to the point where it loses thousands of jobs in the tourism industry, destroying fishing, camping, hunting, other kinds of tourism activities, so that thousands of jobs there will be destroyed for 500 years,	SO01
13574	and the mining companies have had the same track record everywhere they've been where they set up a subsidiary, give most of the money to their overseas parent companies, and then when they're close to the end of the mine, they spin it off as an independent company, that company declares bankruptcy and the people who live there are stuck with hundreds of years of bills in the billions of dollars trying to pay for the cleanup.	FIN03
<b>Sender Name (Submission ID)</b> john case (40118)		
16366	I am opposed to the proposed PolyMet because of the risks to the lake Superior watershed.	WR111
<b>Sender Name (Submission ID)</b> John Clifford (2101)		
104	[How do we know] how much it might cost to carry out 500 years of remediation in the interconnected waterways of Northern Minnesota?	FIN01, FIN05
<b>Sender Name (Submission ID)</b> John Coleman (GLIFWC) (48559)		
16540	It appears that the SDEIS Goldsim modeling is based on MODFLOW modeling of an old basin design that was deemed fatally flawed and is not modeling of the currently proposed basin design.	WR094
16541	Careful examination of the scant information in the above referenced Attachment A (2011) indicates that the modeling done in 2011 for that attachment was not of the basin as currently proposed. The footprint modeled for attachment A is the footprint of an early basin proposal from 2007 (2007 basin footprint attached) that was supplanted by the basin design developed during the "Mitigation Options" process of 2008.	WR094
<b>Sender Name (Submission ID)</b> John Crampton (39091)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Crampton (39091)	
12092	The constant alteration of drought and flood conditions caused by climate change in Minnesota could put strains on the whole water treatment process which wasn't even taken into account in the SDEIS's water modeling (which didn't even taken into account the seasonality of flows in the rivers, streams, wetlands and groundwater) The model which put the flow of the Partridge River at 1/3rd of its actual flow is not fit to be the basis for predicting needs to treat water pollution under climate change scenarios for the next 500 years!	WR003, WR077, WR091, WR148, WR176, WR180, WR196
12629	Almost all of the examples of technologies that PolyMet provides are from dry climate hard rock mining in Utah, Arizona and Montana. There are no actual real life examples of sulfide mining being done in an environmentally-safe manner in water-rich environments.	WR023
12634	The PolyMet SDEIS does not provide any contingency planning for catastrophic occurrences, other than mantras about “adaptive management.” What will PolyMet do if there’s a 10”-12” in three hour rainfall like there was in Duluth on June 19-20, 2012? What will they do when this overwhelms the pumps and pipelines and treatment facilities and floods the tailings ponds?	WR202
12636	What will PolyMet do if there is a prolonged drought? Or a straight line wind storm as there was in the region in July, 1999 with winds in excess of over 90 mph that knocks out power to the site or damages water treatment facilities?	WR202
12639	The PolyMet project will be a huge generator of carbon emissions from fossil fuel sources, thus hampering Minnesota’s efforts cut harmful greenhouse gas emissions. By destroying or degrading thousands of acres of wetlands and forests, the PolyMet project will decrease the significant carbon sequestration that these valuable forests and wetlands provide.	AIR01
12644	The PolyMet SDEIS does not adequately consider alternatives to open pit sulfide mining such as underground mining. It doesn’t adequately consider the alternative of backfilling the open pit to benefit long term water quality.	ALT06
12645	Why is there no formal public health impact assessment being done by the Minnesota Dept. of Health for this project?	HU01
12648	PolyMet’s claims that no asbestos-like fibers will be released are unproven. These fibers, over long periods of exposure, cause mesothelioma, a form of fatal lung cancer that is very common on the Iron Range because of the releases of these fibers from other mines in the area. The cumulative effect of the PolyMet mining project will be to add more releases of these fibers into the air and water of the region.	AIR03
12673	The so-called economic benefits of PolyMet sulfide mining project are exaggerated and the costs grossly undervalued in the SDEIS.... The main question that the SDEIS does not address, is what negative impacts will sulfide mining in Northeast Minnesota have on tourism, on small businesses, on service and/or tech industry employment, new business formations, and on the future economic diversity and sustainability of the NE Minnesota area?	SO02
17182	The surface water flow calculations for the Partridge River underestimate the baseflow conditions by a factor of 3. This is a fatal flaw since the computer model calculations of water flow are at the heart of hydrological estimates of the flow through the mine, tailings ponds, pipelines, water treatment facilities. Will PolyMet need to make the water treatment facilities bigger? Will they have to treat the water for 1,000 years or 2,000 years or forever? We can’t tell because all the calculations are derived from a water flow model based on inaccurate data. The SDEIS should be completely redone or rejected for that reason alone.	WR165
17183	PolyMet is proposing to mine for twenty years and then leave to the next 20 generations of Minnesotans the task of keeping its ...technologies running at a high levels of performance (and without any financial assurances) in order to ward off disastrous acid mine pollution dumping into the Partridge, Embarrass, and St. Louis Rivers and ultimately Lake Superior, the world’s largest body of fresh water. The risk of this is far too high. For this reason alone, the PolyMet project should be rejected.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Crampton (39091)	
17185	Mark Seeley...member of the DNR Working Group on Climate and Ecology predicts that the Boundary Waters area will be an oak savannah biome by the end of the 21st century. This unprecedented change in rainfall and climate caused by greenhouse gases will result in a large probable increase in severe weather events ---- floods, droughts, more severe storms, increased fracturing of bedrock caused by deeper and more frequent freeze-thaw cycles. How will this affect PolyMet’s proposed liners and slurry walls and other engineered controls in the mine and tailings ponds that may already be inadequate to the task of sealing off the seepage and leaching of toxic pollution into the many fractures and fissures in the rock formations underlying Northeast Minnesota?	WR128, WR180
17186	The PolyMet project will destroy 1,000 acres of high quality, high biodiversity wetlands. PolyMet’s open pit will totally destroy a pristine, high value wetland... The proposed mitigation is restoring old sod farm fields in Aitken County to make old ditches “swampier.” ... these so-called “restored wetlands” will not adequately replace the function and value of the destroyed real wetlands, and they will be in another watershed. PolyMet will also indirectly impact another 6,000 acres of high quality wetlands that will be seriously degraded through hydrological changes and pollution. ...the Army Corps of Engineers should require equivalent mitigation in acreage, location, function and value of both direct and indirect wetland impacts	WET01, WET03, WET05
17187	The PolyMet SDEIS does not adequately address the harm that will be done to wild rice throughout the region even with the proposed engineered controls. To comply with the wild rice sulfate standards all engineering controls that capture and treat water will have to function perfectly for hundreds of years, which is neither reasonable nor realistic.	VEG04, WR115, WR157
17188	How many of the 360 operating jobs will there be if the 2nd PolyMet processing plant is not built? Of these remaining 300 or so jobs, how many will be full-time and how many will be seasonal? How many will be decent, benefits-paying jobs?...If the history of mining is any guide, automation will chew away at any operating jobs there are in 2017 so there will be half that number in a matter of 10 years	SO01
17189	The SDEIS predicts that the PolyMet project will increase overall employment in NE Minnesota by 1% But how many jobs and small businesses will be destroyed or not created because of negative perceptions of people who might want to come to the area but are turned away because of sulfide mining’s terrible impact on the natural environment and livability of the area?	SO01
17190	areas that are dependent on mining and other extractive industries have higher unemployment, a higher degree of socio-economic problems, and lower quality of life than non-boom-or-bust regions. ...it is a battle between the old, dying, largely-automated mining economy vs. the new economy based on sustainable, livable communities.	SO01
17191	The Financial Assurance section of the PolyMet SDEIS is a very short exercise in double-talk and deception that fools no-one except those who are willing to be fooled. PolyMet is going to talk about financial assurances only at the time of permitting once it has passed environmental review? Nonsense!!!	FIN01
<b>Sender Name (Submission ID)</b>	John Doberstein (18364)	
2542	And I would please ask that we reevaluate the 500 years of proposed water treatment needs to be addressed. And it is not adequate. It says that it will happen. It does not say how that will be funded, how it will be paid for...I feel that should be part of this supplemental draft so that the public, the potential entity that will shoulder the responsibility of this cleanup, the public, that we have a chance to comment directly on what the plan is and the cost. How much is this going to cost? What is the dollar amount? How can we do it?	FIN01, FIN05, FIN08, FIN13
2543	And there is also no contingency plans outlined for expected accidents that occur at all mines of this type. Mishaps such as pipeline spills and accidental releases, failures of water collection, and treatment systems, tailings and basin failure.	PD22, WR130

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Doberstein (18364)		
14662	During operations 6.2 million gallons of polluted water a day will be treated. The mining plan does not describe what will happen if the water treatment plants break down. And I would like to see more addressed in that realm.	PD22
<b>Sender Name (Submission ID)</b> John Dregni (42874)		
8998	The water resources of our state have an unimaginable value both in am monetary sense and to the health and lives of Minnesotans. I suspect that if we decided to sell life sustaining water in large quantities, the value would make copper and nickel mining pale by comparison. To protect that natural resource will require care. Mining appears to pollute the natural water resources of Minnesota.	WR195
8998	The water resources of our state have an unimaginable value both in am monetary sense and to the health and lives of Minnesotans. I suspect that if we decided to sell life sustaining water in large quantities, the value would make copper and nickel mining pale by comparison. To protect that natural resource will require care. Mining appears to pollute the natural water resources of Minnesota.	SO01, WR195
18067	Mining appears to pollute the natural water resources ofMinnesota.	WR107, WR108
18067	Mining appears to pollute the natural water resources ofMinnesota.	FIN16, FIN17
<b>Sender Name (Submission ID)</b> John Eckfeldt (39757)		
6430	In my mind, there is no question that sulfide mining will bring great risks to the water quality and lands in northeast Minnesota.	HU01, WR195
6431	In my mind there will be associated risk to the health of those living in the area and those downstream in the watershed	HU03
6432	PolyMet’s pollution mitigation proposals are vague and very well may not work as planned.	PD01
6433	I believe that the only way to assure containment of this potential pollution is to require PolyMet to put funds in escrow or supply bonds for potential cleanup costs. I am not a mining engineer, but from what I’ve read the annual operating costs for some of the proposed water purification systems (reverse osmosis) might be several million dollars per years and cleanup costs should a containment system malfunction could run in to tens of billions of dollars.	FIN01, FIN05
6434	If PolyMet want to mine in Minnesota, [this] will clearly put Minnesotans at risk if their containment schemes fail to work as expected	HU07
6436	If PolyMet want to mine in Minnesota...require them to provide concrete financial assurances before they start, not after they pollute the groundwater and watershed and “skip town.”	FIN01
8317	PolyMet’s pollution mitigation proposals are vague and very well may not work as planned.	PD01
8322	I believe that the only way to assure containment of this potential pollution is to require PolyMet to put funds in escrow or supply bonds for potential cleanup costs.	FIN01, FIN08
11558	I am a professor of Laboratory Medicine and Pathology at the University of Minnesota in Minneapolis, I also own a home in Isabella, Lake County, MN... there is no question that sulfide mining will bring great risks to the water quality and lands [and health impacts] in northeast Minnesota.	HU03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Eckfeldt (39757)		
11562	I believe that the only way to assure containment of this potential pollution is to require PolyMet to put funds in escrow or supply bonds for potential cleanup costs... If PolyMet want to mine in Minnesota, which will clearly put Minnesotans at risk if their containment schemes fail to work as expected, require them to provide concrete financial assurances before they start, not after they pollute the groundwater and watershed and "skip town."	FIN01, FIN08, FIN10
16318	there is no question that sulfide mining will bring great risks to the water quality and lands in northeast Minnesota. In my mind there will be associated risk to the health of those living in the area and those downstream in the watershed....	HU03
<b>Sender Name (Submission ID)</b> John Engel (42835)		
7335	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
7335	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	NEPA16, SO10
<b>Sender Name (Submission ID)</b> John F Miller (47618)		
7267	[The project] will provide a much needed economic impact to the Iron Range communities.	SO10
<b>Sender Name (Submission ID)</b> John F Wetzel (42872)		
14868	The NorthMet Project affects at least 6,600 acres including mature forest, floodplain and wetlands. Will the lost acreage be replaced with equal quality lands? If not, will North Met be required to compensate the Forest Service for any loss of biodiversity that is not equally replaced? The SDEIS does not adequately address habitat and forestry losses, subsequent impacts and compensation. It needs to be considerably strengthened in these areas.	VEG03, WET14, WI02
14869	Direct wetland losses are over 900 acres with another 7,000 likely to be impacted as a result of interference with water flows or pollution. However, I understand that only the 900 acres are being compensated or replaced and most of these replacements will be outside the affected watersheds. Are the 900 acres being replaced with comparable wetlands? Why isn't compensation being proposed for the other 7,000 acres?	WET01, WET03, WET05
14870	As a biologist who has worked with wetlands and waterfowl, I know how difficult it is to replace wetland losses with equal quality wetlands and the effects of wetland losses when replacement does not occur within the watershed. I find that the SDEIS does not adequately address wetland losses/replacements from a quality standpoint nor the total affects to the watersheds with most replacements being planned for outside the impacted basins. Until these lapses are corrected, the 404 permit should not be approved.	COE03, WET03, WET05
14871	In addition the MNDNR needs to provide the citizens of Minnesota a reasonable assessment of the full impact that are likely to occur with approval of this mine and plant. The North Met proposal will only be the start of applications as other similar deposits are scattered through this area.	PER07

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John F Wetzel (42872)		
18075	The NorthMet Project affects at least 6,600 acres including mature forest, floodplain and wetlands. Will the lost acreage be replaced with equal quality lands? If not, will North Met be required to compensate the Forest Service for any loss of biodiversity that is not equally replaced? The SDEIS does not adequately address habitat and forestry losses, subsequent impacts and compensation. It needs to be considerably strengthened in these areas.	NEPA08
18077	Direct wetland losses are over 900 acres with another 7,000 likely to be impacted as a result of interference with water flows or pollution. However, I understand that only the 900 acres are being compensated or replaced and most of these replacements will be outside the affected watersheds. Are the 900 acres being replaced with comparable wetlands? Why isn't compensation being proposed for the other 7,000 acres?	WET01, WET03, WET05
18080	I know how difficult it is to replace wetland losses with equal quality wetlands and the affects of wetland losses when replacement does not occur within the watershed. I find that the SDEIS does not adequately address wetland losses/replacements from a quality standpoint nor the total affects to the watersheds with most replacements being planned for outside the impacted basins. Until these lapses are corrected, the 404 permit should not be approved.	COE01
18081	In addition the MNDNR needs to provide the citizens of Minnesota a reasonable assessment of the full impact that are likely to occur with approval of this mine and plant. The North Met proposal will only be the start of applications as other similar deposits are scattered through this area.	CU04
18083	I find it hard to believe that seepage from the tailings piles won't far exceed that predicted in the SDEIS. The tailings and overburden will need treatment for 200 years or more. What entity will be responsible to oversee such treatment? Should permits be granted for any project when such unrealistic oversight is needed?	PD08
<b>Sender Name (Submission ID)</b> John Fedo (18092)		
3224	Terms like financial assurance and 200-year modeling are misstating the true nature of the project and are meant to be a distraction away from the orderly analysis are engaging in.	FIN16
13462	My whole point tonight is to speak in favor of the moving the PolyMet Project forward and to advocate based on the science and the facts that can make this project viable and not be deterred by well-funded opponents that are ironically funded, in some cases, by the wealth created by the very industry they now claim they oppose.	NEPA16
<b>Sender Name (Submission ID)</b> John Finnegan (42797)		
6917	One area of concern is the federally protected Canada lynx. They say it wouldn't be afford by their operation on page ES-42. But on page ES-39 they say it may be affected by localized direct decrease and fragmentation of designated critical habitat. I find this a contradiction and a very vague statement.	WI01, WI02
<b>Sender Name (Submission ID)</b> John Flaten (11144)		
11017	the Mine and Project facilities, if constructed, operated and closed as outlined in the SDEIS, would, to an unacceptable extent, pollute our environment and quite possibly damage human health of those working there and residing in the Partridge River and Embarrass River watersheds and derivatively the downstream St. Louis River watershed... and in time the purity of Lake Superior and beyond.	HU03
11034	the "No Action Alternative" outlined in the SDEIS should be selected by MDNR, the US Forrest Service and the Army Core of Engineers (hereinafter, the "Co-Leads"), unless the Project can be restructured and re-engineered to substantially eliminate the resulting environmental and human health risks which, I believe, the SDEIS materially understates.	NEPA09

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	John Flaten (11144)	
11038	The SDEIS essentially describes all of the water containment systems that will be utilized in connection with the Project the same way and to the same 90% modeling standard. Read as a whole the language “greater than” should be disregarded. It is clear that the standard of “capture” for waste water treatment and environmental protection is 90%.	WR018
11039	is it all right and safe enough, in light of the hoped for returns to the people and communities of Northeast Minnesota, the State of Minnesota and the United States that 10% of the waste water from the PolyMet Project will escape capture into the environment? I think not. I can’t escape the simple equation that over the expected 20-year Project life before closure, the 90% capture rate is just like operating the Mine and Project facilities for two (2) years without any waste water containment or treatment whatsoever.	WR070
11040	Of course, the relevant period is not just the 20 years that the Project will produce the sought after copper, nickel and other non-ferrous metals. The 10% release will continue in perpetuity, albeit with very gradually less pollutants should PolyMet’s mechanical Reverse Osmosis (“RO”) and non-mechanical filtering systems actually prove to be effective (though nothing on this scale has ever been done in connection with any non-ferrous sulfide hard rock mine anywhere in the world).	WR023, WR035
11044	What is perhaps even more disturbing is the recent public admission by a MDNR environmental review official that the flow rates of the Partridge and Embarrass Rivers, on which PolyMet’s waste water containment modeling is based, may understate the flow rates by a factor of two to three (i.e., 200 to 300%). One of the tribal commentators suggests that the error may be as high as a factor of five or 500%. News reports suggest that the Co-Leads have been aware of this modeling error for a period of years.	WR003
11045	The engineered waste water containment systems are clearly among the most important environmental and human health protection systems required of the PolyMet Project. The waste water capture efficiency, in my opinion, should be as close to zero tolerance as can be engineered. A 10% escape factor is simply way too dangerous. If substantially 100% of all of the Project’s waste water cannot be contained, treated and neutralized, the Co-Leads should select the No Action Alternative.	WR018, WR022
11046	the Co-Leads have already concluded that the substantially safer underground mine alternative is not reasonably economically feasible (though it apparently may be just 20 miles to the north in connection with the proposed Twin Metals project).	ALT01
11047	The possible flow rate error may mean that the 90/10 modeling standard is also incorrect and that a greater percentage of the Project’s waste water, without re-engineering and re-modeling, can be expected to escape, thereby exasperating the environmental and human health risks to a woefully dangerous and unacceptable level. On this basis alone the Co-Leads cannot consider the SDEIS as presently written the basis for a final EIS.	WR003, WR018
11048	“Adaptive management” to monitored exceedences to which the SDEIS so often refers, will not suffice.	WR130
11049	As is the case with many other pollutants dealt with in the SDEIS, it concludes that “it is not expected” that fugitive dust releases will violate any Minnesota or federal water quality, air emission or visibility standards.	AIR10
11050	Notwithstanding the PolyMet Fugitive Dust Containment Plan (any real explanation of which does not appear to be set forth in the SDEIS), in my mind it defies credulity that the cumulative effects of these fugitive dust releases will not violate applicable standards at any time, from time to time or often.	AIR10
11051	At page 3-117 the SDEIS refers to probable maximum precipitation (PMP) rainfall events, but there are many other weather events which cannot be adequately accounted for by modeling (witness the derecho blow down storm in and around the BWCAW in 1999, the other squall, straight-line, wild fire and sustained high velocity winds we are now experiencing with climate change and tornadic and seismic events which most certainly will strike the Project site over time).	PD29

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<b>Sender Name (Submission ID)</b>	John Flaten (11144)	
11052	Whether water and air quality standards are actually violated does not mean that there will be no adverse environmental and human health impacts from the Project's fugitive dust releases. Depending on the particulate size and weight of the dust swept into the air, disposition may be within the Project boundary, into the Watershed rivers or carried by the wind in all directions many, even hundreds of miles of miles away.	AIR11
11053	Fugitive dust releases are already occasionally a problem from the operations of the taconite mines near the PolyMet Project area.	AIR10
11054	The fugitive dust releases from the PolyMet Project would be additive. The sulfides in the dust may result in harmful acid rain and/or acid drainage, including the formation of methyl mercury. Over time the adverse effects may well change our environment and lead to a panoply of respiratory and other human health problems. Here again the least offensive alternative is the No Action Alternative.	AIR10
11055	I have also reviewed the "Major Differences of Opinion" or "MDOs" expressed by some or all of the Tribes and other Cooperating Agencies in Chapter 8 of the SDEIS...In almost all cases I find the corresponding Co-Lead Response to be inadequate or not believable, especially where the Co-Leads say that monitored exceedences can be dealt with after the fact through adaptive management actions that could be taken.	NEPA12
11056	The Project combined actions described in the SDEIS have appropriately evolved from inputs by the Cooperating Agencies, with the advice of the USEPA and prior public comments to the Co-Leads. To a great extent the extended EIS period results from the complexity of attempting to undertake a sulfide hard rock mining project in the midst of a water rich environment where, in my opinion, just as with the Pebble Mine in Alaska, it should never be undertaken or even considered.	NEPA15
11057	The impatience of those awaiting the hoped for enhanced socio-economic development the Project would allegedly bring, be they local residents, municipal officials or the MDNR charged with maximizing the return on the States' natural resources, is quite understandable...PolyMet and Glencore have been and are the pacing factors. They appear to be seeking to design, construct, operate and close the Project at the lowest possible cost for the greatest profit and with inadequate regard for the environment and human health.	SO02
11058	This is not to say that the SDEIS is a complete failure or that the attempted Project is not a virtuous objective. They can perhaps be saved, but not without a great deal more re-engineering, re-modeling and effort by PolyMet and Glencore and the good faith and patience of the Co-Leads, all to fashion a final EIS that will protect and enhance the interests of the State and all of its citizens.	NEPA15
11059	I have no quarrel with the number of direct and indirect construction and Project operating jobs generally described in the SDEIS, except to say that the numbers pale in comparison to the diversified economy jobs added in the Arrowhead since iron ore and taconite mining started to decline in the 1960s. By some estimates that number may exceed 25,000, exclusive of many other direct and indirect tourism jobs, offsetting the loss of mining jobs to a very substantial extent.	SO02
11060	What I do quarrel with, however, whatever the numbers of PolyMet mining jobs described in the SDEIS, is that the numbers are not immediate, nor are they constant throughout the 23-year construction and Project operating life.	SO02
11061	Just as it takes far fewer miners to produce a ton of taconite today than it did 20 years ago, it will take far fewer and fewer PolyMet miners to produce a ton of constituent mineral products over the life of the Project. These jobs are not the permanent career path jobs portrayed by PolyMet in the SDEIS. Moreover, the SDEIS does not address PolyMet's commitment, if any, to retrain the miners it will lay off as miner productivity marches inevitably along.	SO02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Flaten (11144)	
11062	Most of the folks testifying at the SDEIS public hearings clearly believe PolyMet would hire most of its workers from the several communities located within daily commuting distance of the Project boundary, but this is not actually what the SDEIS says. Rather it says that PolyMet expects to hire a majority of its workers from within the Arrowhead region. Most of the Arrowhead is beyond a reasonable daily commute which means these folks will be disappointed. Moreover, it's not at all clear that most of the pool of potential workers within the nearby communities even have or will be able to acquire the necessary job skills and qualifications to be hired by PolyMet or the suppliers and providers to the Project.	SO06
11066	The SDEIS does not set forth the proposition of some non-ferrous mining proponents that tourism cannot support survival of the communities in Northeast Minnesota. However, the SDEIS does say that non-ferrous mining is not expected to adversely impact tourism in Northeast Minnesota. This is a disingenuous position, because all past mining history shows us that mining tends to become dominant where it is established to the detriment of a diversified local economy, in this case significantly including tourism.	SO02
11067	[E]ven more disingenuous is the assertion in the SDEIS that at the end of the 20-year Project productive life when job numbers fall toward zero and many of the workers must leave the area to look for work elsewhere, the tourism industry supported by the magnet retirement community will be on hand to step in to moderate the socio-economic adverse impacts to the mining communities.	SO02
11068	Many of my environmental concerns could be addressed by pursuing the underground mine alternative which could avoid many of the adverse impacts in the Watersheds. But since PolyMet and the Co-Leads have determined that this alternative is not reasonably economically feasible and must be eliminated from further consideration, I will not discuss it further except to say that, if engineered and developed properly, it might well be preferable to many opponents of the PolyMet Project as contemplated in the SDEIS.	ALT01, ALT06
11075	The SDEIS describes in some detail the reclamation and remediation procedures required of PolyMet before and after Project closure and estimates the costs thereof from \$125 million to \$200 million +. One tribal commentator estimates the same costs to be as high as \$86 billion over the extended period that PolyMet and its successors will need to remain active. Just as I believe \$86 billion is a vast overstatement, I believe the SDEIS in all likelihood significantly understates the true costs in today's dollars.	FIN05
11078	PolyMet and Glencore will have received most of their profits from the Project before their reclamation and remediation responsibilities even begin.	FIN01
11080	[R]eclamation and remediation costs are likely to approach the total profits realized from the PolyMet Project. That tells me that there is no way PolyMet or any successor can afford to perform as described in the SDEIS.	FIN01
11083	[C]onstruction of the much vaunted RO addendum to the Waste Water Treatment Plant is deferred to year 20 at the start of Project closure even though it could be well utilized much earlier. By possibly understating the water flow factor noted above, PolyMet is better able to defer the cost of the RO addendum for the full life of the Project.	PD03
11084	The SDEIS never says who will do the monitoring and reporting required by the SDEIS during and after the life of the Project, but it appears to me that these tasks will be performed by or on behalf of PolyMet, not the Co-Leads who will simply review and perhaps act upon or penalize exceedences.	PD24
11085	The SDEIS describes the required financial assurance instruments only in a general way, stating that the specific amounts and instruments will only be appropriately determined in the Project permitting process.	FIN08
11086	[T]he means by which discharge of PolyMet or its successors in bankruptcy might be avoided is not explained in the SDEIS. Perhaps it should be, at least in general terms.	FIN01

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<b>Sender Name (Submission ID)</b> John Flaten (11144)		
11087	among the risks which must be addressed by the financial assurance instruments is the “failure of the mining company”. This is the only such reference I noted in the SDEIS. All other references are to PolyMet as the mining company. ...the public can not trust in continuity of PolyMet management over time, because it is likely to change with ownership of the PolyMet Project assets. It is good that the SDEIS has identified this risk, but it should be developed to clarify for the proponents what the Co-Leads may understand to be the case.	FIN01
11089	PolyMet is a publicly owned corporation with an active trading market in its stock. The cost of build out and operation of the Mine and the Project facilities will require substantial additional public investment. It is unlikely that the required investment can be obtained without one or more public offerings...I frankly don’t see how PolyMet can fashion a prospectus and registration statement for its required financing in compliance with applicable state and federal securities laws on a basis consistent with the SDEIS, and vice versa.	FIN14
11091	Should Polymet stock significantly decline in value, as it most certainly will at some near point to any such public offering, plaintiffs’ lawyers will be lined up to sue for alleged damages for misrepresentations in the prospectus and registration statement. PolyMet and Glencore, if it can be found within federal jurisdiction, will be defendants, together with any other affiliate control persons who can be identified. Though sovereign immunities may apply, plaintiffs’ counsel may well argue that the Co-Leads, by virtue of the final EIS and permitting of the Project, are proper defendants in such civil actions.	FIN03
11092	Please select the No Action Alternative so that our non-ferrous minerals in Northeast Minnesota can remain in the ground and our environment protected for the centuries it will take before, if ever, the United States needs them strategically.	ALT14
<b>Sender Name (Submission ID)</b> John Gappa (40282)		
9696	The point of the matter is that given the significant length of time that remediation will be required, estimating the upfront investment needed to fund the remediation is highly uncertain and very small differences in assumptions have a dramatic impact on the total funding required. Moreover, the detail behind PolyMet’s estimates must be disclosed in the final EIS in order for the public to assess the viability of remediation and necessary financial assurance.	FIN05, FIN08, FIN13
14147	I have struggled to figure out how the numbers can work with a model that has 20 years of benefits and hundreds of years of costs. My conclusion is that the only way the PolyMet model works is to inflate the benefits, underestimate the costs and shift the risks to someone else.	SO01
14149	What I also found is that the financial assurance model is highly sensitive to very small changes in inputs. For example, · A \$1 million increase in annual operating costs results in a \$37 million or 13% increase in the future value of funding required· A one percentage point decrease in the reinvestment or discount rate used results in a \$83 million or 30% increase in the future value of funding required· A half a percentage point increase in the inflation rate results in a \$71 million increase or a 25% increase in funding required.	FIN05, FIN08
14154	Since Glencore is the primary beneficiary of this mine, they should be named on all permits and be directly liable to the State of Minnesota for all future remediation.	PER02
14156	My request to the scientists reviewing this project is to be wary of overestimated benefits and underestimated costs and risks. Once PolyMet and Glencore exposes the sulfur laden ore to the elements, Minnesota does not want to be facing our own “too big to fail” scenario, at tremendous cost to our taxpayers and to our environment.	FIN10
<b>Sender Name (Submission ID)</b> John Green (16120)		
1238	Who would be responsible for this judgment [deeming facility features environmentally acceptable]? The Co-Lead Agencies (or their successors)?	PD24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	John Green (16120)	
1239	Will the final design and permits receive public review?	PD24
1256	Such potential expansion of mining [beyond the planned NorthMet pits] would be addressed in Chapter 6, Cumulative Effects.	CU02
1258	Why separate Categories for 2 and 3? Will they be mixed, or segregated, and why (in each case)?	PD15
1259	Why is there a need to capture the drainage from Cat. 1 stockpile if it is so low in S? Why else was the 0.12%S cutoff established? ... If the cutoff value were reduced to 0.10%S, would this eliminate the “necessity” to capture and treat seepage? Lowering the cutoff value to 0.10%S would increase the size of the Category 2/3 stockpile, but if no permanent capture and treatment is required wouldn't this dramatically lower the long-term post-closure costs?	PD15, WR134
1260	What is the experimental evidence for the long-term integrity of the geomembranes used in the waste rock stockpiles for Cats 2,3,4?	GT10
1262	Would peat beneath the [pit rim] dikes present stability problems?	GT06
1263	The WWTF would include “equalization and treatment basins/ponds”. What is “equalization”? This facility is to be maintained “as long as necessary”, including possibly adding to its capabilities if found necessary (perhaps including reverse osmosis, RO). Question: Hundreds of years?	PD04, WR032
1270	Reject concentrate from the WWTF to be evaporated/crystallized and disposed of offsite. Needs explanation: Where? How? By whom? Moving a pollutant elsewhere doesn't eliminate it.	PD03
1273	Water Management I recommend overdesigning for extreme weather/climate events or conditions (drought, 200 year precipitation event, snowmelt).	PD22
1278	Reclamation and Closure. Recommend: lime or limestone should (not “could”) be added to East Pit as it is backfilled with Cat. 2,3,4 waste rock to help neutralize pore water.	ALT06
1279	West Pit: Question: Where is the rationale for flooding to a pond? No liner or bentonite? Won't the water react with mineralized pit wall rock? What is the predicted water quality of this water over time? Such pit lakes in other mining districts with sulfide mineralization are often highly acidic and toxic.	PD03, PD15, WR002, WR088, WR173
1281	Category 1: well-engineered cap with local soils, vegetation, and geomembrane to lessen infiltration – but hazard of long-term succession to forest in this climate, with deep roots that could penetrate geomembrane. Needs a discussion! Question: What is the risk associated with such root penetration over centuries? PolyMet plan is to cut woody vegetation in perpetuity, apparently! This issue needs to be investigated at depth.	VEG05
1284	Water Management (p. 3-72): “When all reclamation activities required by the Permit to Mine are completed, a Request for Release . . . would be submitted.” By whom? In yr 2200?	PER13
1289	Post-closure activities “PolyMet has committed to conduct demonstration projects during the Life of Mine and Reclamation phases (total of est. 40 years) to establish non-mechanical water treatment systems to be used at the Mine Site.” Comment: They should have started long ago! How will this commitment be enforced?	PD06, WR137
1292	Table 3.2-11. Why does the Concentrate dewatering output (660 stpd) equal the input? No dewatering after all?	PD03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	John Green (16120)	
1299	Table 3.2-12. Several chemicals will be used in the Flotation process that might be deleterious or dangerous if released to the environment (e.g. Flotation Collector (PAX), Frother (MCBC and DF250), Flocculant (MagnaFlox10), and Gangue Depressant (CMC). Questions: Where will these chemicals end up? In the tailings? Will there be release to the Embarrass River watershed? What is the toxicity of these materials?	PD03, WR030
1301	Tailings Management: Rock buttresses along north tailings basin dam seem much too small to be effective for stability. Comment: Re-do stability modeling?	GT03
1302	Hydrometallurgical process Comment: Description of process incomplete. How would the Au/PGE recovery produce a sulfide precipitate from the leach residue thickener overflow? How would the Cu concentrate be precipitated as sulfide?	PD21
1303	Table 3.2-13. Question: what will be the fate of the potentially noxious chemicals Sulfuric and Hydrochloric acids, liquid SO <sub>2</sub> , and Sodium Hydrosulfide? Same question as for flotation chemicals above.	HAZ01
1305	Hydrometallurgical Residue Facility Reclamation (p. 3-130)- Dewatering sounds complicated and difficult ... Questions: Slime? How will this be dealt with?	PD18
1306	Reclamation and Long-term Closure Management ... Revegetation also includes yearly mowing “or as needed”. Again, rationale for no woody succession? For 200 years?	VEG05
1307	Hydrometallurgical Residue Facility Reclamation ... Inspection for plugged inlet structures and piping systems (p. 3-131) also perpetual?	PD20
1311	West Pit Backfill ... Several arguments presented for not backfilling, but others not explained ... The economic factors (potential inaccessibility of mineral value; cost of moving waste rock for fill) seem to have trumped others.	ALT03
1313	[Silicate minerals would help neutralize some acid] Question: then why collect and treat seepage?	PD03
1314	Question. Is it the [MPCA standard] SO <sub>4</sub> limit not the acidity that requires long-term treatment?	PD03
1322	Post-closure non-mechanical treatments ... are “considered a long-term goal for closure”, and therefore should be thoroughly described and discussed well ahead of time (in the EIS).	PD06, WR137
1328	Question: does this also mean that the SO <sub>4</sub> standard is the limit driving the whole seepage treatment plan? What dilution factor (from tributaries) is valid for the St. Louis River between the Embarrass River and Fond du Lac Reservation? And river rice beds upstream from the Reservation?	WR035, WR060
1331	Surface Waters. Hydrology ... What baseline information is available on “existing aquatic ecology”? It’s impossible to judge this “requirement” without known present conditions baseline.	AQ01, WR071
1349	Groundwater Hydrologic Modeling ... Question: Did anyone examine the miles of bedrock drillcore or core logs thereof for fractures?	WR014
1355	Surface water Hydrologic Modeling One input factor is a “rainfall database” (p. 5-45). Questions: How long-term is this? How sensitive is the model? Does it consider 200 years? Climate change? In Table 5.2.2-13, only the 20-year annual low and high flows are modeled. This EIS should be valid for MUCH longer.	WR071, WR077

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	John Green (16120)	
1358	NorthMet Waste Rock Geochemistry. PolyMet claims that “Within the pit walls the blasting effects (om fracture permeability) are limited in terms of lateral extent and do not have much effect on solute transport in bedrock”. Question: What actual measurements support this statement? Any data – or a hunch?	WR167
1370	“Category 1 waste rock . . . is predicted to never generate acidic leachate” Question: Then why collect and treat drainage/seepage from the Cat. 1 waste rock and tailings?	PD15, WR134
1371	Question: Where would this material [Virginia Formation rock] be encountered in these pits? Virginia Formation not found on the pit cross-section diagrams. Would it be inclusions in the Duluth Complex? Would it be combined with Cat. 4 waste rock and disposed of in the East Pit, or how? Why isn’t it simply included in Waste Rock Category 4?	PD15, PD31
1375	PolyMet states that “not all sulfide sulfur has the same potential for release” Explain, including management implications.	WR001
1378	On p. 5-54 the concept of “concentration caps” is introduced, on the basis apparently of empirical field and lab observations and relied on to minimize solute loadings of effluent in the modeling calculations. Question: what is the theoretical basis or rationale for such “concentration caps”? Is it a valid concept on which to base environmental standards?	WR033
1383	“...four solutes are assumed to be attenuated by adsorption in the aquifer: As, Sb, Cu, and Ni.” ... Question: Do the media through which these leachates pass never become saturated in these solutes? This seems unlikely. Therefore how can this adsorption process be counted on to act on the long term of this project?	WR058, WR167
1387	Modeling predicted much higher solute loads for many components than observed empirically, apparently due to adsorption, and models were adjusted correspondingly by “calibration factors” (fudge factors) to produce results closer to those measured. Comment: This should be explainable scientifically.	WR030, WR050, WR060
1388	Questions: What is the rationale for the size of the pond on top of the tailings? What is the basis for the rates of recharge given in Table 5.2.2-17? This certainly would be seasonably variable. Have weather/climate extremes been taken into account? Global warming? What is the “closure beach” as opposed to the others?	PD08, PD11, WR057, WR180
1393	Question: isn’t [probabalistic modeling for contaminant transport] a big loophole for future enforcement? Of course, it also could be economically beneficial if long-term experience shows permit requirements to be stricter than necessary to maintain water quality. Can we trust Agencies to enforce the permits?	PER37
1399	What is [the West Equalization Basin]? What is its function?	PD04
1402	East, East-Central Pit to be flooded so waste rock and pit walls are water-saturated, reducing acid production. Questions: What will be the oxygen content of this flooding water? Won’t it be at least initially oxidized as it contacts waste rock and pit walls? This will generate acid immediately. What do experiments show for this with time? How will the pore water in the pit be kept from diffusion or replacement by lateral infiltration of more oxygenated groundwater, thus continuing acidification?	WR029
1404	Will there be no surface overflow [in West Pit flooding]? ... Will there be no attempt to minimize reaction with wallrock sulfides? What predictions have been made for water quality in this unlined pond in mineralized rock? ... Add limestone? Bentonite?	WR027
1405	What modeling has been done for water balance in the Tailings Basin? Will pond require augmentation during drought? If so, where from? Or is this not important? If so, why not?	WR056, WR057

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Green (16120)	
1406	Possible modification of dikes and surface water flows [at Mine Site] “as necessary”. Question: As necessary according to whom? Could high pumping rates of excess West Pit water exceed capacity of the WWTF?	PD04, WR148
1407	Using the “MN-fiber” definition would be a highly conservative standard, since in my experience the great majority of particles likely to cleave with that aspect ratio in igneous rocks such as the Duluth Complex would be hornblende, the most common amphibole and one that is not implicated in health issues (see list on p. 5-436-437).	AIR03
1408	Considering the intensive sampling that has been done of the rocks proposed to be mined, by drill core and for bulk metallurgical testing, the amphiboles should have been – and must be – identified to evaluate their potential carcinogenicity. Then any necessity for treatment could be better evaluated.	AIR03
1409	Again, a “small fraction of <2.5 micrometer fibers have been identified as amphibole” from flotation pilot testing. These should have been identified as to amphibole type. Questions: a) What is PSD (p. 5-440)? b) (last line p. 5-441) “. . . wet and minimize wind erosion.”	AIR03
1411	What is the long-term (100 year, 300 yr) empirical basis for such [geomembrane] specifications, under saturated, in-ground conditions? Of course, great care must be taken in laying down these geomembranes to prevent punctures and local strains.	GT10
1412	what is the angle of repose for each [Category 1 Stockpile] lift? How is it to be determined for modeling/planning? Empirical observation during construction? Long-term stability?	GT04
1413	Stability analyses of stockpile cross-sections “indicated that all sections analyzed met the minimum required Factors of Safety”. Question: What Factors of Safety are required?	GT04
1414	[Would the DNR] only monitor the waste cover [during monitoring/maintenance]? Not the face/flanks?	GT09
1415	[A Factor of Safety of 1.1 minimum for materials deemed subject to liquefaction] seems much too low!	GT02
1416	Will these small-looking [North and South slope] rock buttresses be large enough to confidently maintain stability post-closure? Where would the LTV tailings to be used in adding to the dams come from? The adjacent W cell?	GT03, GT08
1417	Modeling results for Factor of Safety during construction and long-term closure are given in Table 5.2.14-1; they appear adequate.	GT04
1418	Potential for this extreme hazard [liquefaction] was evaluated under various scenarios, showing that the “design would meet the minimum Factors of Safety deemed acceptable by the Co-Lead agencies” (see Tables 5.2.14-3, 5.2.14-4) However, those minimum Factors of Safety seem dangerously low to this reviewer.	GT02
1419	since these [NorthMet Project Proposed Action] tailings are supposed to be non-acid-forming, why is it necessary to keep them water saturated [in long-term closure]?	WR057
1420	Dam safety reports should be done more often than every 5 years.	PER21
1422	Actual possible physical modifications to the Tailings Basin in case of a problem are not described.	GT07
1423	Preparation includes installation of a granular drainage layer and wick drains, then temporary loading with imported material (What kind? Where from?) to compact the substrate and increase stability.	GT08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Green (16120)	
1424	Design Cross-sections ... show waste to be underlain by potentially unstable saturated LTV slimes and fine tailings and peat	GT01
1425	Differential compaction would stress the liner system, but modeled strain would fall “within acceptable limits of most geosynthetics.” (p. 5-575) Comment: need better assurance than this.	GT10
1427	Liquefaction analysis was not performed. Question: what is the strength of the HRF residue/waste? Might it not be at risk of liquefaction?	GT11
1430	Again, will the synthetic geomembrane and geocomposite drainage net deteriorate over the long term? With what effects on the Factors of Safety?	GT12
1440	The discussion of potential cumulative effects assumes the successful implementation of the best management practices and mitigation measures discussed throughout this SDEIS . . . “ (p. 6-2). Comment: This is a too-restrictive definition	CU05
1442	Although the mineral resource projects listed here have not developed to the public proposal or scoping stage, a great deal of drilling, sample analysis and other exploratory work and engineering studies have been invested in many of them, and proposed development is likely within the active period (40 years?) of the NorthMet Project. At the least, this Chapter [Chapter 6] should show on maps the mineral holdings of each of the eleven companies or projects mentioned under Speculative Actions.	CU02
1443	This discussion appears to limit the CEAA to projects “located within the portion of the Mesabi Iron Range encompassed by St. Louis County (see Figure 6.2.2-1)” (p. 6-14-5) Since the NorthMet Project is geologically contained within the Duluth Complex, not the Iron Range, this is an illogical limitation.	CU01
1444	clearly the CEAA should also cover the area south and east of the Iron Range underlain by the Duluth Complex (outside of the BWCAW), and would include, for instance, the Twin Metals, Teck, Cardero, and Encampment projects.	CU01
1445	The farther-afield Kennecott Tamarack and Cooperative Mineral resources projects, located in Aitkin and Crow Wing Counties, would not appear to be spatially related to NorthMet. And the Cumulative Effects also clearly extend all the way down the main stem of the St. Louis River to St. Louis Bay.	CU01, CU02
1451	more analysis should be done on the surface impacts of underground mining versus the open pit plan. The benefits of underground mining may not be as great as claimed	ALT01
1453	[Regarding west pit backfill alternative] Where would this material (especially the water) be disposed of? Again, wouldn't this water be degraded (acidified to some extent) by contact with mineralized rock? What would be the water quality impacts to the receiving stream (Partridge R.)?	ALT03
1454	While adaptive management is essential, it depends on a high level of trust. Such actions could be necessitated well after the Closure period, and thus come under the responsibility of the State through Financial Assurance funding.	FIN01, FIN05
6866	[The authors] do not provide a map of the Sites of Biodiversity Significance or any detail on the criteria for the different levels of biodiversity significance. The omission of a map and criteria must be rectified in the final EIS.	VEG02
6867	Proposed mitigations for biodiversity loss should be part of this environmental impact study in accordance with the policies in Minn. Statutes 116D.02, Subd. 2.	WI01
17594	The NorthMet SDEIS PolyMet Mining Inc. Project fails miserably in analysis, alternatives and mitigation for most environmental issues raised in this document as will be documented in the myriad of public responses.	ALT21

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> John Green (16120)		
17605	The Land Exchange for the federal ownership at the mine site for other non-federal lands within the Superior National Forest (SNF) only compensates for the acreage of federally managed land lost. It does nothing to mitigate the actual loss of biodiversity function at the landscape scale.	LAN03
17606	Although biodiversity is not a USFS assessment requirement, the state of Minnesota, as a partner in this SDEIS, is not precluded from assessing the loss of biodiversity and wetland ecological function in this SDEIS, and should do so under the policies of the Environmental Policy Act.	VEG02, WI02
17607	Also mitigations for biodiversity loss are not even explored in any meaningful way, for example, through more protected public land, either federal or state, in designated areas like parks, scientific and natural areas, or wildlife management areas.	ALT13, VEG02
17608	Because substantive information about financial assurance was not covered in this SDEIS and was put off until the permitting process, the regulatory agencies must make the decisions about the amount and type of financial instrument needed in a transparent and accountable way. That means adequate public notice to all interested parties, particularly those that took the time to offer meaningful comments to this SDEIS, by establishing an electronic database of these interested commentators and giving them the opportunity to be on a timely notification list for all permitting steps.	FIN13
17609	...Polymet, a Canadian company, has no mining experience and their capital assets do not show any capacity to fund needed financial assurance. For these reasons, their largest shareholder, Glencore Xstrata, who ultimately controls PolyMet operations, must also be a permit holder for state and federal permits for the PolyMet NorthMet project.	FIN01, FIN02
<b>Sender Name (Submission ID)</b> John Grillo (12959)		
106	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
107	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
108	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> John Gustafson (47365)		
11402	the lifetime of the negative environmental impacts for the proposedmine far exceeds the economic viability of the mine	SO01
11408	no human or mechanical method exists to guarantee treatment of themine's pollution for the time beyond the economic viability of the mine. How does one guarantee that people four hundred years in the future will even know how to operate the water treatment systems, let alone will be able to afford to do so	FIN01
11411	the majority of the economic benefits of the proposed mine are shortterm and will flow out of the State, going to entities that have no interest or personal investment in Minnesota's livelihood.	SO01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Gustafson (47365)		
11413	If Minnesota is to have a long term sustainable economy, Minnesota needs to promote and emphasize potentially sustainable businesses like tourism, forestry and forest products, agriculture, renewable energy resources, and valued-added manufacturing rather than the short term extractive mining of low-valued bulk minerals. The viability of sustainable businesses will be negatively affected by the proposed Polymet mine.	SO02
<b>Sender Name (Submission ID)</b> John Hadesty (57573)		
19564	Delaying projects like this could risk the availability of a qualified workforce. As coal mines continue to downsize, qualified miners are retiring or being retrained to take other career positions thus leaving projects like PolyMet to be forced to hire un-qualified, inexperienced miners.	SO10
19565	It will create a much needed boom to Minnesota's economy as miner's such as myself flock to your state seeking employment.	SO10
<b>Sender Name (Submission ID)</b> John Haleeska (58105)		
19896	A [ILLEGIBLE] the people of Minnesota will have to deal with an unknowable cost for centuries vs a few jobs for a couple decades. The state would be crazy to allow this.	SO01
<b>Sender Name (Submission ID)</b> John Harrington (16277)		
10477	I wonder if the federal agencies, especially USEPA, will be able to find the SDEIS adequate since it does not appear responsive to their prior review comments on inclusion of financial assurance adequacy.	FIN13
<b>Sender Name (Submission ID)</b> John Helland (42941)		
11987	I'm worried about the number of wetland acres that will be permanently disturbed, as well as their biological quality. Significant wetland acreage is of unique quality in the state that simply can't be recreated by wetland replacement elsewhere.	WET07
11992	Because of acid mine drainage from an above-ground mine, and the resulting leaching of sulfides and sulfate into the water and air, I have a real concern that there isn't adequate watershed protection from these releases and subsequent pollution.	AIR09, WR128, WR129
11993	Geological studies in the area have shown that there is fractured rock, which could allow mercury pollution to be an eventual serious concern.	WR012
14509	The overall public health concerns with this type of mining, unprecedented in Minnesota, simply are not addressed in any serious or comprehensive manner. Our state Health Department already has identified northeast Minnesota as having a higher degree of health concern, especially for small children and vulnerable adults.	HU01
14510	Why couldn't this mine be an underground one?	ALT01
14511	There are just too many serious risks for Minnesota to approve this DSEIS in the march to issuing permits to mine.	PER35
<b>Sender Name (Submission ID)</b> John Herbst (33031)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Herbst (33031)		
12179	Learn from the [historic mining legacy in Wisconsin]. This tailings pile would rupture its containment device before 100 years elapsed after mining operations ceased, and the company, would be long gone and difficult to get remedies in court. This sulfide mine will present long-term contamination issues...we don't need another failed attempt at siting a sulfide mine which will only give minimal assist to the local economy but will damage the region's long term economic stability due soil/groundwater pollution, impacts to recreational activity and environmental ruin.	SO02, WR023
<b>Sender Name (Submission ID)</b> John Herold (42751)		
14438	Please consider the dangers posed by any sulfide mining in northeast Minnesota – the environmental damages and the lost tourism jobs.	SO01
14439	the cost of trying to keep the waters clean would be a financial hardship to taxpayers.	FIN10
14440	Fugitive dust emissions from Polymet’s proposed mining will not be contained, and they will not be prevented. These emissions pose serious health issues, something that Polymet will cause and will ignore.	HU03
18958	Polymet’s proposed mining will cost the citizens of Minnesota tremendous financial resources. For 500 years? How long do you think Polymet will pay for 500 years of water treatment?	FIN01, FIN10
<b>Sender Name (Submission ID)</b> John Ingham (7765)		
850	Even with the best technology and state of the art methods for capturing sulfide. eventually, perhaps several generations from now, those chemicals will leach into the watershed and Lake Superior. The mining company is not going to take responsibility, even if it still exists as an entity, 100 years from now. And, even if it were to take responsibility, it would not be possible reverse the damage. No amount of money would compensate the people relying on Lake Superior for their potable water.	WR111, WR115
<b>Sender Name (Submission ID)</b> John Ipsen (40880)		
10640	most of the money generated [by the mining operatins] will go to foreign investors whose environmental records are lamentable, that when the mines are exhausted there will be no more mining jobs, that the resources will largely be sent to overseas markets, and that the mining operations will be very energy intensive and are likely to pollute the environment and pose a risk to human health in workers as well as civilians in local and distant communities.	SO06
10646	Even if able to comply with the 10 mg/L sulfate standard, because of the huge volumes of water the process will produce, operations will actually discharge hundreds of tons of sulfate annually to the St Louis watershed. This will result in methylation of mercury in the St Louis that will bioaccumulate in fish of the estuary and in Lake Superior. ...The SDEIS is deficient in addressing this physical and biochemical reality.	MERC02, MERC08, MERC10
10651	PolyMet does not have a good enough plan in place to control dispersal of these [Amphibole] fibers from multiple fugitive sites. The SDEIS does not specify the actual amount of fiber that will be released and indicates the true risk to mine workers and those affected by the plume cannot be adequately assessed.	HU04
10654	During the lifetime of Polymet’s proposed operations and cleanup there is a very real threat of major flooding occurring and causing overflows that could result in catastrophic exceedence of expected discharges. How has engineering dealt with the potential for what we know as a 500-year flood?	WR057, WR077, WR180, WR193
10658	And what of the potential for contaminating deeper aquifers, considering both natural faults and those created by the mining process?	WR012

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Ipsen (40880)		
14574	Having reviewed the PolyMet SDEIS I am left with the impression there are many uncertainties and a very real potential for Polymet (and the other planned mines waiting in the wings) to harm to the land and the public. ... The SDEIS in many places essentially directs the reader to have faith in what the co-lead agencies (CLAs) have concluded without providing adequate concrete and believable science to back the conclusions.	PD01
14578	has the engineering dealt with the possibility of serious drought? Having waste rock stored under water is one of the means proposed to limit the production of toxic leachate. The process intends to draw water from the surrounding wetland to keep the waste rock submerged. What would happen if water became so scarce there wasn't enough available to maintain coverage? Then what if flooding followed this?	WR077
14580	What I glean overall from reading the SDEIS is that the science behind Polymet's plans is imperfect and not adequately tested, and the real effects of going ahead with the proposed mine are not predictable enough for such a high-risk proposal. It is apparent from the presentation and language in the SDEIS that the CLAs have chosen to accept models that predict what they (the CLAs) hope to be the outcomes so the mine can proceed.	PD29
14582	The SDEIS points to a 90% confidence interval as an industrial standard. 90% certainty means 10% uncertainty. I am surprised to see such a low set of the bar, particularly when an error on the other side could cause a calamity that would be impossible to control and when so much taxpayer money is at risk (monetary assurance doesn't cover unforeseen disasters).	FIN08, FIN10
14583	I'd love to see an industry established in northern Minnesota that would provide quality long-term employment. I also appreciate there is a great demand for copper in the world. Currently the SDEIS does not show that we have developed the ability to mine hardrock metals without harm in this setting.	SO01
<b>Sender Name (Submission ID)</b> John J Weber (54717)		
18508	Many profoundly-important questions have been raised about 1) the proposed mine itself, 2) waste-rock stockpiles and 3) tailings basin. Before "the genie is let out of the bottle", so to speak, wiser answers are needed than are currently available from applicant, DNR or mining industry. I contend that the gravity of the many unknown consequences at this point in time in 2014 heavily argue against granting a favorable E.I.S. conclusion at this time.	NEPA09
<b>Sender Name (Submission ID)</b> JOHN KENNEDY (44317)		
10354	We stand to lose the beauty of the area, the wildlife, the health of the watershed, the clean air, and the ability of Tribal Nations to carry out their guaranteed rights to hunting, fishing, and gathering wild rice in the region.	LU06
11403	Simply stated, water is precious. As demand for drinking water increases due to population growth, global warming, and loss of other clean water sources, it would be unconscionable to put this source of clean and abundant water at risk.	WR195
15716	Think about it: Who at the United States Forest Service is authorized to "swap" our public land with mining companies?	LAN02
15717	These lands in the Superior National Forest were purchased under the Weeks Act of 1900 in order to preserve watersheds. Open pit mining is forbidden on such lands. To open these lands to sulfide mining would be a betrayal of the public trust and is clearly illegal.	LAN02
15718	Although they were forced to cede their lands to the invading miners and loggers, the native populations are guaranteed hunting, fishing, and subsistence rights on Ceded Territories. When we look at the impacts sulfide mining would likely have on wild rice, fish, and game, we can clearly see that these guarantees are meaningless.	CR01
<b>Sender Name (Submission ID)</b> John Klein (16018)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> John Klein (16018)		
1131	When or where do we see the \$ set aside for the environmental insurance?	FIN05, FIN08
<b>Sender Name (Submission ID)</b> John Landgraf (18163)		
13320	most of the profits of PolyMet will go to people not in Minnesota...I would be more inclined ... if the money, actually the real profits the mining, went to Minnesota.	SO06
<b>Sender Name (Submission ID)</b> John Lhotka (43080)		
14991	Our lakes and rivers are arguably one of our single most important assets, not only from a quality of life perspective, but also because tourism is a significant economic driver for northern Minnesota. I also am a property owner on a lake in the Ely area, so the decisions on the Polymet project may directly impact me, if it negatively impacts the watershed that flows through my lake.	SO01
<b>Sender Name (Submission ID)</b> John Lindroos (48758)		
13349	No amount of financial profit (for companies, company executives or or hired employees) justifies or offsets the potential long term damage "sulfide mining " could have on the Northeast Minnesota environment. Any related Mining Process must be proven to be safe for employees, residents and the Environment.	SO01
<b>Sender Name (Submission ID)</b> John Lowen (41715)		
3179	I think that to allow sulfide mining and its attendant pollution so very near the greatest source of freshwater in North America, virtually atop the tributaries to the few remaining wilderness areas in the upper midwest for the benefit of giant corporations and a fewhundred jobs is completely insane!	SO02
<b>Sender Name (Submission ID)</b> John Lundquist (39413)		
7228	This is classic short-term thinking, i.e. we will have jobs now and for a relatively short time and risk one on the country's most amazing natural areas for future generations.	SO01
<b>Sender Name (Submission ID)</b> John M Ek (52481)		
17034	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
<b>Sender Name (Submission ID)</b> John M Roth (54492)		
18072	The PolyMet/NorthMet Sulfide Mining proposal, if allowed to proceed, would cause significant harm to our natural resources. It would reduce outdoor recreation opportunities and it would provide commercial benefits to veryfew at the expense of substantial losses to our sustainable quality of life. It violates the very essence of the Minnesota DNR's mission.	SO02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John M Roth (54492)		
18074	The proposed mine, furthermore, is in a highly valuable and ecologically significant region. It has nearly 1 ,000 acres of wetlands, thousands of acres of mature forest lands, and habitat for rare and threatened species, including the Canadian Lynx.(...) They are not for us to use at the expense of our children, or at the expense of future generations. And they certainly must notbe exploited by a few, the 350 or so workers for 20 or so years and a foreign corporation, at the expense of the rest of the state for generations to come.	SO01
18076	The proposal calls for the creation of a permanent two-mile wide waste rock and tailings pile filled with highly toxic manganese, arsenic, lead and mercury. In addition to the extreme risk of leakage of those toxins into the groundwater and air, the tailings pile and surrounding area will become an inhospitable wasteland, unsuitable for any outdoor recreation activities forgenerations.	WR126, WR195
18079	It must be further stated that PolyMet/NorthMet has not stated how it, much less future generations, will pay for the necessary water pollution treatment, which could be required for 200 to 500 years.(...) They have no plans for long-term pollution treatment, and they don't have the funds, and never will, to cover the costs.	FIN01, FIN05
18082	The Minnesota DNR cannot gamble with our natural resources or our future. It cannot subject our children and future generations to a polluted landscape and the costs for treating it. The DNA has a legal and moral imperative to protect our resources.	SO01
<b>Sender Name (Submission ID)</b> John Mischke (42458)		
6797	There has to be other ways to help Northern Minnesota economically [other than the PolyMet project.]	SO02
<b>Sender Name (Submission ID)</b> John Mugford (38629)		
9955	I do not think it is in the best interest for the citizens of Minnesota tobe responsible for future tax burden as a result of cleanup costs forpollution that will result from poly mets project...Financial assurances that need to be in place for 200 to 500 years have not ever been proven.	FIN01
9956	There is some discrepancy as to the amount of water being released from theproject. I would believe the tolerances were put into the model for a goodreason therefore it would make sense that the correct numbers be put in andthe model be rerun.	WR086, WR093, WR105, WR178, WR183, WR189
14073	The land swap between the forest service and poly met in my mind needs tohave its own separate review... The use of the national forest hasrestrictions put on it for a reason. We need to respect that and not put theneeds of a corporation ahead of the rights of the citizens of the UnitedStates.	LAN10
14074	I believe this harm will not only come to the earth but also would be damaging to the already established tourism environment of that area. This includes businesses as well as cabin owners... I do not believe that the current tourism economy and vacation home industry could flourish side by side with the nonferrous mining economy which brings pollution and greater industrialization to this unique part of our country.	SO02
14075	[The mine plan should] account for the destruction of moose habitat as well as other natural habitat for the Canadian lynx	WI02
14076	[The mine plan] should call for a detailed plan for financial assurances thatprotect current and future taxpayers	FIN10
14077	[The mine plan] should accurately assess health risks to the public	HU01
14078	[The mine plan should] address the risks of mercury pollution for our children as well as future generations	MERC03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> John Mugford (38629)		
14079	[The mine plan] should improve wetland protection and replacements	WET04
14080	[The mine plan should] provide Minnesotans with accurate information about how long polluted waters will require treatment	WR035
14081	Glencore must be recognized as a responsible party for permitting because of its ties with PolyMet	PER02
14082	Fix the inaccurate water data used in the model and redo the water model	WR003, WR189
14083	the few hundred jobs and monetary gain for a corporation is not worth the perpetual damage and pollution nonferrous mining will cause to Minnesota's environment.	SO01
14084	Our fresh water in Minnesota is the envy of many areas of the United States. Why on earth would we want to take any chances that it could be compromised. Our fresh water is our most Important and valuable resource.	WR195
<b>Sender Name (Submission ID)</b> John Munter (41920)		
2520	The problem is that the mine becomes a superfund site requiring perpetual treatment for the run-off of antimony (similar to arsenic), sulfates, and heavy metals. DNR admits that the Mine Site will require water treatment for more than two hundred years and the Plant Site will require water treatment for more than five hundred years.	WR035
2576	The DNR seems more interested in preserving Polymet's profit margin than discussing what should be a fundamental requirement of a study: the worst case scenario.	PER35
2577	It is a telling signal of the bias of the DNR that we do not know what the IRR would be for underground mining and the West Pit Back-fill option. Underground mining would have significant benefits such as no need to pay four million dollars in a land exchange, no need to destroy a wetland, and no need for perpetual maintenance.	ALT01
2578	It isn't clear why DNR isn't requiring Polymet to choose one of the underground or underwater sequestration options if this project is going to be done at all.	ALT01, ALT06
2579	It is difficult to see how all the tremendous rock blasting on the site won't widen old cracks in the bedrock and open up new ones for toxic leachate to begin gradually seeping into the aquifer and beyond.	WR016
2580	The argument is that Northern Minnesota has always been an industrial area with some water pollution and some air pollution and we have to accept it for good paying jobs...	SO10
2581	Do we really want a good-paying job so badly in Northern Minnesota that we are willing to destroy the very reason why we are here? Is this something we can brag to our children about? Is this a job where we will lay awake worrying at night about the effect on our neighbors and our progeny?	SO01
3212	One of the problems, for example, is the DNR should require PolyMet to buy, not lease, the mineral rights for the south -- the west pit so that it can be back filled from that 20-story tailing pile and so it can be under water, then, when the financial assurance collapses at some point.	FIN08
3213	And the peak pollution won't happen in the sulfur mining -- sulfide mining for 500 years and then there's the downside of the Bell Curve after that. So it's in perpetuity, basically.	PD03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Munter (41920)	
13214	You cannot guarantee financial instruments for 500 years or a thousand years in perpetuity. It's going to cost \$3-and-a-half billion -- \$3-and-a-half million to \$6 million a year for two water-treatment plants. That comes out to \$1-and-a-half to \$3 billion over 500 years, and of course, we're looking at 1,000 years.	FIN01, FIN05
13460	I'll be darned if I want my kids to work on a 500-acre, 20-story slag pile, superfund toxic waste site straddling the continental divide on wetlands surrounded by rivers over an aquifer at the headwaters of the St. Louis River Basin. I think this project is going to fail	SO01
16551	Even if the forty-six lbs a year of airborne mercury PolyMet creates during the twenty year mine is not judged to be a burden on a region where one in ten babies born already has too high a mercury level—there is a problem.	AIR04, MERC03
16556	Even if all the plastic is replaced regularly over the five hundred acre site, and all the leachate is collected from the twenty story tall reactive waste rock, and the pipe leaks are repaired quickly, and a fund is established by PolyMet to fund the two water treatment plants that will cost between three and a half to six million dollars a year—there is a problem.	FIN05
16560	Even if the estimated minimum sixteen million gallons of escaped toxic seepage a year into the ground and surface waters isn't considered a problem—there is still a problem.	WR113
16565	PolyMet seems to be thinking of spending something on the order of two hundred million dollars that would probably be set aside in some kind of a trust fund. Taking the high end of cost estimates by the DNR of six million dollars a year this would run out in about 40 years depending on how much interest was garnered.	FIN05, FIN08
16568	The biggest part of the problem is that to think that any funding mechanism could be guaranteed for perpetuity or even a good way towards it is insane.	FIN01
16576	Tribal experts have suggested design changes that would reduce potential toxicity exposure. One idea would be to require underground mining.	ALT01
16578	Tribal experts have suggested design changes that would reduce potential toxicity exposure...The other idea is called the West Pit Back-fill. This is also more expensive but the twenty-story tall and least reactive Category 1 rock pile would be completely back-filled into the West Pit which would then fill with water. This literally entombs the rock under water and away from the oxygen source of the atmosphere that it needs to become reactive.	ALT03
16580	DNR is hoping the fractures in the granite are small enough to prevent much leachate flow but they cannot know this because they do not have an adequate study and they cannot know what the future blasting will open up.	WR007, WR012, WR016
16581	If PolyMet can demonstrate that all the doom-and-gloomers were totally wrong in a short time frame and there has been no major pollution in the first two decades then they might push to open up more mine sites or others might and rent out the PolyMet processing facility.	CU04
16582	It is crystal clear, now, that we cannot trust the DNR to produce an unbiased study that looks for the most environmentally-friendly mining alternative, that is receptive to Tribal input, that looks out for the future of local residents, and that is even grounded in reality in proposing perpetual waste treatment.	NEPA15
16681	This is a nutty 'plan' when you are polluting ground water forever and presuming that financial instruments will be around in perpetuity to save downstream residents from perpetual pollution and that the cost of these financial instruments will never in perpetuity negate the value of the ore being mined for a few decades.	FIN05, FIN08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> john Oertel (42889)		
9141	PolyMet has addressed all potential issues associated with the Supplemental Draft EIS, including all of those brought forward by State and Federal officials, employees and their consultants throughout the process. PolyMet has been working with regulators for nearly 10 years to ensure compliance.	NEPA16
9145	PolyMet's NorthMet Project has already provided a positive economic impact to the area and has given many communities hope as a source of good jobs.	SO10
9149	The NorthMet Project is sound and has mitigation measures in place to address the Project's environmental impact.	PD28
17646	The NorthMet Project will bring high-paying jobs to an area of the State that needs the long term work and continued economic development. The NorthMet Project will be a significant contributor to the economic impact of northern Minnesota.	SO02
<b>Sender Name (Submission ID)</b> John P. Gorski (38866)		
5376	The Minnesota DNR, our Governor, State Representatives, Senators, and Congressmen have all committed themselves to the highest degree of environmental scrutiny...Questions persist about dust and particulates(asbestos like)drifting into the BWCAW.	AIR03
5377	Questions about the accuracy of aquifer mapping and water migration persist.	WR071
5378	Lastly there is great public doubt that contaminated waters can be contained for the many years needed to protect our cherished waters.	GEN01
<b>Sender Name (Submission ID)</b> John Paulson (9632)		
1347	I support the SDEIS for Polymet's NorthMet Project and expect (as with all permits to operate within the State of Minnesota) there will be adequate requirements for operational controls that greatly limit the possibility of operational or accidental pollution	PER34
1348	I believe we are leading again with the NorthMet SDEIS, the process for public input, and the ongoing open and honest dialogue related to precious metals mining in Minnesota and the need for environmental protections.	NEPA16
<b>Sender Name (Submission ID)</b> John PERKINS (10490)		
553	Get the real data and make an informed decision that is best for the environment AND the fiscal health of MN.	SO04, WR071
1149	Get the real data and make an informed decision that is best for the environment AND the fiscal health of MN.	SO04
16290	Get the real data and make an informed decision that is best for the environment AND the fiscal health of MN.	SO04
<b>Sender Name (Submission ID)</b> John Plumadore (42731)		
14392	After reviewing the information from the recent draft mine plan, I have no confidence that the Polymet company can keep the surrounding watershed safe from pollution caused by the mine.	WR115
<b>Sender Name (Submission ID)</b> John Pugh (9343)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	John Pugh (9343)	
128	PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR035
131	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	PD29
132	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed.	WR003
133	The SDEIS must be redone to calculate whether PolyMet’s seepage would violate water quality standards using the closest location where groundwater seeps would reach wetlands.	WR064
135	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number.	WR018, WR022
136	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump	WR010, WR061, WR069, WR168
137	It is a biased document that relies on unjustified assumptions, conceals important facts, and won’t allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR038, WR071, WR110, WR130
1175	Why must we support the small communities through a short-term effort (20 years or less) of copper-nickel mining, which will result in long-term loss of environment (200 years or more)?	SO01
1176	This will impact not only the pristine waters of northern Minnesota but, over time, may impact our water quality down the Mississippi River basin.	WR111
1177	Northern Minnesotans are anxious for jobs and delusional over the possibility of mining and construction jobs. Polymet is promising high-paying jobs, but how many folks who live up there will actually be hired?	SO06
1178	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR107, WR108
1180	The SDEIS must be redone, because its predictions are completely unreliable and its methods conceal, rather than analyze environmental impacts.	NEPA09
1182	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
1184	The SDEIS must be redone to calculate whether PolyMet’s seepage would violate water quality standards using the closest location where groundwater seeps would reach wetlands. Both the mine site and tailings site have high pollution levels in surficial groundwater seeps and have wetlands far closer to pollution sources than the “evaluation locations” used in the SDEIS.	WR120
1185	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	PD29

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Pugh (9343)		
14725	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR018, WR022
14726	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	NEPA07
14727	Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
<b>Sender Name (Submission ID)</b> John Quimby (41314)		
9315	Please use the utmost caution in approving any mineral extraction that would compromise either water resources or other environmental factors.	WR195
<b>Sender Name (Submission ID)</b> John Reynolds (47520)		
7061	The [groundwater flow] model uses a base flow estimate which significantly underestimates flow. As a result, the model likely underestimates the amount of sulfates and heavy metals carried to the Partridge River and Lake Superior.	WR003
7077	Water channels which is what fractured bedrock is need to be closed to prevent the outward migration of heavy metal laden water...The fractures need to be sealed or the entire basin needs to be lined with peat in adequate thickness to adsorb the heavy metals to prevent their migration from the site.	PD04, WR090
7082	Adequate monitoring and mitigation procedures need to be in place and ready to go if monitoring shows migration from the site. That will require an ironclad financial commitment that is lacking on this project.	FIN01, FIN08
7095	Monitoring must be part of the permitting process. The permit must require a robust monitoring plan with financial assurances to fund it.	PER06
7097	The public should be afforded an additional 30 days to take into account the new information.	NEPA07
7102	If mineral rights are severed from USFS land swap the project needs to assume that mining will occur on those lands and that needs to be included in this permitting process instead of permitting this as a stand alone project.	LAN04
<b>Sender Name (Submission ID)</b> John Roth (42900)		
10121	The proposed land exchange is totally flawed for at least two other reasons. First, land exchanges can only occur legally if the lands obtained by the Forest Service are in the public interest and their appraised value equals or exceeds the federal land being transferred.	LAN01, LAN03
12911	... land exchanges can only occur legally if the lands obtained by the Forest Service are in the public interest and their appraised value equals or exceeds the federal land being transferred. A land exchange, in fact, should not even be considered until a full "Yellow Book" appraisal of the lands have been completed and furnished to the public.	LAN03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	John Roth (42900)	
13018	"Land exchanges can only occur legally if the lands obtained by the forest service are in the public interest and the appraised value equals or exceeds the federal land being transferred.	LAN03
13030	A full "yellow book" appraisal of the lands must be completed and furnished to the public	LAN03
17294	I am asking you to reject the proposed exchange of 6,650 acres of Superior National Forest land for the PolyMet/NorthMet sulfide mine project. Sulfide mining has never been done anywhere in the world without causing significant water pollution... The mission of the Forest Service is to "sustain the health, diversity and productivity of the Nation's forests and grasslands to meet the needs of present and future generations." That is your charge as Supervisor of the National Forest. Exchanging land to allow a sulfide mine within the boundaries of Superior National Forest...would be a direct violation of the Forest Service's mission.	LAN02
17296	The needs of some people for the next 20 years cannot be given greater value or preference over the needs of the future. ...the needs of... the country as a whole always should be given greater consideration. I think that the founders of the Forest Service all believed the same, since it is inherent in the reason for establishing and maintaining the National Forests.	LAN01
17297	...even if the appraised "fair market" values for the lands are comparable, the land PolyMet/NorthMet is offering is of insufficient ecological value. The 6,650 acres of federal land PolyMet/NorthMet is seeking is a single block of land that includes over 2,000 acres of mature forest and approximately 1,000 acres of irreplaceable wetlands. ... The federal land also has critical wildlife habitat for moose and Canadian Lynx, and several other threatened species.... The land PolyMet/NorthMet is offering, on the other hand, is scattered in various parts of the forest. It lacks the ecological and management value of a large continuous tract of land. It has split mineral rights, mostly immature forest, and it lacks the valuable wetlands and rich biodiversity of the federal land.	LAN03, LAN04
19009	Proponents of the PolyMet/NorthMet mine have claimed that the mine will bring needed jobs for the next 20 or so years, but that is only a short term benefit, and one that is limited only to a relatively modest number of individuals in Northeastern Minnesota.	SO01
19010	...the land PolyMet/NorthMet is offering is of insufficient ecological value. The 6,650 acres of federal land PolyMet/NorthMet is seeking is a single block of land that includes over 2,000 acres of mature forest and approximately 1,000 acres of irreplaceable wetlands. Those wetlands are vital to the water quality of the entire watershed, which includes large areas of Superior National Forest and flows into Lake Superior.	LAN03, WET14
19011	As you know, Section 404 authorizes the Administrator to deny a permit to discharge dredged or filled material into a watershed if it will cause "unacceptable adverse effect on municipal water supplies, shell fish beds and fishing areas (including spawning and breeding areas), wildlife, or recreation areas." The proposed PolyMet/NorthMet mine will have all of those adverse effects for potentially 100s of years	COE03
19012	It also must be stated that PolyMet/NorthMet's SDEIS is fundamentally flawed because it fails to provide alternatives that would eliminate or reduce the adverse impact on the wetlands. It doesn't offer ways to restore or clean up the mine site, and it fails to offer adequate mitigation or compensation for the lost wetlands within the Lake Superior basin.	WET01, WET03, WET20
19013	[PolyMet will] directly destroy 913 acres of highly valuable wetlands in the Partridge River headwaters and 100 Mile Swamp, and indirectly harm over 7,000 acres of nearby wetlands due to air and water pollution from the mine's waste rock and tailings pile;	WET24
19014	[PolyMet will] cause highly toxic mercury that is currently bound up in the wetlands at the proposed mine site to be released into the waterway, harming all fish in the watershed and any person who eats such fish, particularly young children;	MERC02, MERC03
19015	[PolyMet will] produce at the mine's tailing site 1,506 micrograms of manganese per liter, which is 15 times higher than the health risk limit set by the Minnesota Department of Health to prevent brain damage for humans;	HU03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> John Roth (42900)		
19016	[PolyMet will] increase arsenic at the tailing site by up to 417% and as much as 38.5% in Colby Lake drinking water, greatly increasing the risk of cancer for all nearby residents;	HU12
19017	[PolyMet will] destroy over 6,000 acres of vital habitat for moose, Canadian Lynx and other threatened species;	WI02
19018	[PolyMet will] create a permanent wasteland at the mine site and tailing pile - a toxic no-man's land unfit for humans and animals for generations to come; and	LU06
19019	[PolyMet will] produce a toxic unlined Category 1 waste rock pile that will have to be monitored for pollution seepage for hundreds of years with no plan or funding for such monitoring, and no funds for any pollution cleanup should the pollution occur.	WR128, WR129
19021	The proposal calls for the creation of a permanent two-mile wide waste rock and tailings pile filled with highly toxic manganese, arsenic, lead and mercury. In addition to the extreme risk of leakage of those toxins into the groundwater and air, the tailings pile and surrounding area will become an inhospitable wasteland, unsuitable for any outdoor recreation activities for generations	LU06
19022	The proposed mine, furthermore, is in a highly valuable and ecologically significant region. It has nearly 1,000 acres of wetlands, thousands of acres of mature forest lands, and habitat for rare and threatened species, including the Canadian Lynx. (...) They are not for us to use at the expense of our children, or at the expense of future generations. And they certainly must not be exploited by a few, the 350 or so workers for 20 or so years and a foreign corporation, at the expense of the rest of the state for generations to come.	SO01
<b>Sender Name (Submission ID)</b> John Rust (40151)		
6126	A PolyMet mine site (and other future copper, nickel, sulfur mine sites) may leak toxic pollutants into the watershed. Consequently damaging and/or destroying the recreational opportunities for thousands of people, and damaging or destroying the habitat and environment for 1000's of species living in the area.	HU01, WR115
6128	I am not against mining these precious metals – because we all use them in vehicles, and electronic devices. However, I believe that there are less sensitive locations to be extracting these metals from the earth.	ALT16
6132	I believe that those responsible for making the decisions on the PolyMet mine cannot reasonably assure the public that the site will not be leaking pollution into the environment for 200 – 500 years.	PD01
6134	[Periods of political unrest:] During such periods, will maintenance of mining ponds, tailings, dikes be ongoing?	PD01
16446	A PolyMet mine site (and other future copper, nickel, sulfur mine sites) may leak toxic pollutants into the watershed. Consequently damaging and/or destroying the recreational opportunities for thousands of people, and damaging or destroying the habitat and environment for 1000's of species living in the area.	WR111, WR115
16447	I am not against mining these precious metals – because we all use them in vehicles, and electronic devices. However, I believe that there are less sensitive locations to be extracting these metals from the earth.	NEPA03
16448	I believe that those responsible for making the decisions on the PolyMet mine cannot reasonably assure the public that the site will not be leaking pollution into the environment for 200 – 500 years.	PD01
16449	During such periods, will maintenance of mining ponds, tailings, dikes be ongoing?	PD24

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<b>Sender Name (Submission ID)</b> John Sayres (39766)		
6744	The jobs it creates for the time the mine will be operating are far less important than the jobs the tourism industry creates.	SO01
<b>Sender Name (Submission ID)</b> John Schmitt (46242)		
16248	The PolyMet NorthMet SDEIS describes a project that would add to the airborne and waterborne mercury load, has inadequate science to back its claim that the mercury emitted will be adsorbed by soil and tailings, and inadequate study to support its conclusion that no additional mercury methylation will occur.	AIR05
16250	Revise the SDEIS to provide more evidence to support the claim that the LTVSMC tailings will act as a mercury sink contained in wastewater from the plant site. Particularly, address concerns raised by the tribal cooperating agencies that the LTVSMC tailings may become saturated and may even become a mercury source, rather than a mercury sink.	MERC06
16251	Revise the SDEIS to include estimates of the amount of indirect airborne mercury emissions from the electrical power used by the NorthMet project	AIR05
16253	Revise the SDEIS to include discussion of the mercury methylation potential from additional sulfate loading and mercury released from stripped peat at the Mine Site.	MERC08, MERC21
16254	Revise the SDEIS to include quantitative modeling of the effects of the proposed action on mercury in fish in addition to the qualitative discussion in the current draft.	AQ25
<b>Sender Name (Submission ID)</b> John Seymour-Anderson (47637)		
7658	How will the costs of site management and pollution remediation be handled when the proposal shows no concrete and lasting plan for Financial Assurance? Particularly, what happens if Polymet goes out of business before the 200-500 years of water filtration and other pollution control measures have been fulfilled?	FIN01
7660	How can an estimated millions of gallons of untreated polluted water per year, if not fully captured and held in ponds and piping, be considered safe?	WR070
7661	What calculations have been made for air pollution from the extraction of mineral-laden rock? The particulates created and borne into the air have the potential to affect workers and neighboring communities.	HU03
7664	What provisions have been made to fully control the effects of seepage into local aquifers of groundwater, rain and snowmelt when mixed with particulates, sulfide and heavy metals exposed at the mining site during extraction?	WR017, WR018, WR093, WR130
<b>Sender Name (Submission ID)</b> John Skolte (32638)		
12040	The potential economic boost from mining jobs is touted. Ask the people who make their living in the mines in the Sudbury region of Ontario, Canada and take their vacations in the Thunder Bay area of Ontario what they think about the environmental impact of mining.	SO02
<b>Sender Name (Submission ID)</b> john sorensen (41022)		
7502	Polymet has never operated a mine before and is backed by Glencore Xstara which has a history of Environmental breaches resulting in fines.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> john sorensen (41022)		
7503	My information sources tell me that there is no known copper nickel mines in similar environments that have operated without pollution.	PD26
7507	Mining companies often declare bankruptcy leaving tax payers to cover costs of Environmental Disasters and only 350 jobs are expected after construction.	FIN01, FIN10
13936	Please stop and take another look at alternatives, i.e. underground mines.	ALT06
<b>Sender Name (Submission ID)</b> John Strange (58154)		
19903	Despite any assurances to the contrary, we know that this company will not be around to deal with the aftermath of their profiteering. Who will pay?	FIN01
19904	Every time, to my knowledge, this kind of mining has been done there has been pollution. That fact combined with the location in such close proximity to the finest lake country wilderness in the world is unacceptable.	PD26
<b>Sender Name (Submission ID)</b> John Sundstrom (57251)		
17380	As sulfide mining has yet to be demonstrated that it can be done in an environmentally safe manner – Minnesota should wait until Polymet or other mining companies prove that they can do so by a mine in a less sensitive area.	PER35
<b>Sender Name (Submission ID)</b> John Sweeney (18122)		
13503	I would like to see PolyMet come in and give our youth and our natives here an opportunity to choose to leave if they want to, to go out and find an education, employment in other areas, experience the world but not have to leave.	SO10
<b>Sender Name (Submission ID)</b> john syverud (42068)		
2089	[I urge you to] develop and enforce a truly comprehensive set of regulations (along with an escrow) which will ensure when (not if) environmental damage occurs as a result of the mining, it is remediated on PolyMet's dime.	FIN01, FIN14
2090	I urge you to make sure when damage is done, it is fully PolyMet's revenue which will pay for complete remediation of that damage.	FIN01
<b>Sender Name (Submission ID)</b> john szarke (36837)		
8725	Not enough funds put in a Trust to offset the likely litigation that could run into trillions and trillions of dollars!...Future mining ownership and their responsibility to inherit fines, clean up and paying for the physical and environmental harm caused by Polymet	FIN01, FIN05, FIN08
8735	The proposal does not include the impact to the environment and health of people, fish, wild rice, etc. that in addition to the Polymet site there are about 20 other sites on the "drawing board".	VEG04
<b>Sender Name (Submission ID)</b> John Tonsager (9552)		
191	If and when the process is developed to deal with the runoff and contaminants it will be worth rethinking but at the present time I say stop the process and deny the permit	PD01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> John Tonsager (9552)		
957	The risk of permanent damage to voiceless flora and fauna without even considering the harm to humans and tourism is beyond the ability of industry or government to mitigate.	SO02, VEG10, WI13
<b>Sender Name (Submission ID)</b> John Tourville (58159)		
19911	Go forward with Polymet and sustain employers and employment in Minnesota.	SO10
<b>Sender Name (Submission ID)</b> John Velie (39338)		
6112	300 jobs is not worth the potential for long term damage to the fragile ecosystem in the Arrowhead region.	SO01
12814	300 jobs is not worth the potential for long term damage to the fragile ecosystem in the Arrowhead region.	SO01
<b>Sender Name (Submission ID)</b> John W. Vennewitz (43332)		
11323	I [am] concerned that PolyMet's mine plan lacks a comprehensive consideration of chemical contamination of fish and its impact of wetlands also the contamination of drinking water.	AQ25, WR041, WR115
11325	The health of current and future resident's ride on getting this analysis done completely and competently.	HU03
<b>Sender Name (Submission ID)</b> John Wensman (46274)		
8874	Not only is the science bad, but the provisions for long term clean up are financially inadequate as well.	FIN05, FIN08
<b>Sender Name (Submission ID)</b> John Wetrosky (42844)		
8412	I don't want [the NorthMet Mining] operation to turn into a Klondike like situation whereby the pristine environment is jeopardized by irreversible damage.	NEPA09
8412	I don't want this [NorthMet mining] operation to turn into a Klondike like situation whereby the pristine environment is jeopardized by irreversible damage. ... My wife and I take a number of trips to that area of Minnesota during the year and it is a treasure too valuable to lose.	LU06, NEPA09
18277	I am also distrustful of companies manipulating data in order to get aproject in place. Recently I have read several news releases that tend to leadme to believe that some data that has been presented by the company is skewed in favor of the mining company. One such report is on the water flows in the area, which in a recent Duluth news article pointed out a great discrepancy between the company's and the tribe's findings.	NEPA09
18277	I am also distrustful of companies manipulating data in order to get aproject in place. Recently I have read several news releases that tend to leadme to believe that some data that has been presented by the company is skewed in favor of the mining company. One such report is on the water flows in the area, which in a recent Duluth news article pointed out a great discrepancy between the company's and the tribe's findings.	NEPA09
<b>Sender Name (Submission ID)</b> John Wild (36421)		
3795	While the area is already been mined and industrialized, there is no guarantee that toxic runoff will not affect other areas that are not now polluted.	WR115

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Johnathan Eisenberg (18138)		
3465	Send it back and get it right. And don't advance this project until all of those flaws have been fixed and we have an environmental impact statement that actually accurately assesses the impact of this project.	NEPA15
13559	Now we have a Supplemental Draft Environmental Impact Statement only to find out that the water quality model is inherently flawed. It's going to have to be redone again. So the water quality model was a base for a lot of the other aspects of the Draft Environmental Impact Statement. If that has to be redone, then a lot of other (inaudible) has to be redone.	WR003
13560	We're looking here at the potential for 500 years of water quality treatment, which in my mind, and I think in the mind of the law, is essentially permanent pollution to Minnesota that would require to be treated permanently.	WR035
<b>Sender Name (Submission ID)</b> Johnna Hyde (19003)		
14339	I live in the heart of the experimental drilling area and the new SDEIS is important to me, but to date I have only made it through about 150 pages. I support the Water Legacy request as follows. Please give us more time!!	NEPA07
19522	I would first like to comment on the style of the SDEIS itself. I find it tedious to read, with what seems to be irrelevant data ( 4.2.2.1 on precipitation and air temperature has as its most recent data records from 1986, although with climate change, more recent records are more relevant and are easily available); reference errors ( 4-29 refers the reader to section 4.3.6.4 which could not be found); unjustified assumptions ( eg. that the water flow model is accurate); confusing presentation of facts ( eg. 4-17 4 contains apparently contradictory statements about the presence of invasive species and needs to be read many times to figure out just what each sentence refers to); vague statements ( eg.S-538, and many other references to contaminants being shipped off site, but no indication as to where that would be and the impact in that location and necessity for future monitoring); inadequate consideration of important factors (eg. human health issues for employees and the general public residing in the area); misleading wording (eg. using "constituents" instead of"toxins," "contaminants" or "pollutants"); and unnecessary complexity ( 4-45 to 4 7 is incomprehensible). I am giving only one example of each, but it is easy to find many more. My first concern for a revision is that it be shorter, accurate, specific, consistent, and relevant so that it can fulfill its purpose to "inform the public and decision makers of the proposed actions ... " Such a long document as this does little to inform the public and decision makers as most people do not have the time to read it all. I find the "Fact Sheets" provided by the D NR that theoretically summarize the contents to be so biased in favor of the project as to be worthless.	NEPA07

*Alphabetical by sender's first name*

**Comment ID    Comment Text**

**Theme Codes**

**Sender Name (Submission ID)**    Johnna Hyde (19003)

- 19524 This proposal exchanges High Biodiversity sites as identified by the Minnesota County Biological Survey (MCBS), which are rare in the state of Minnesota and already severely diminished by development and industry, and which include 53% of the 100-Mile Swamp and hundreds of acres of jack pine/black spruce, an imperiled ecosystem in Minnesota struggling with effects of climate change. This exchange is not in keeping with good environmental stewardship or with the 2004 Forest Plan for Superior National Forest (SNF). The exchanged land may have an equal value for real estate, but that does not address its value as an ecosystem. A strip mall would have a high real estate value, but it's not what the USFS is designed to protect and manage. Real estate value is not an adequate measure of the value of land. A revised EIS should find more relevant and quantifiable measurements to compare land exchanges, perhaps something like the percentage of the total of equivalent land types in the state, as identified by the MCBS. The DNR has put a lot of effort into the MCBS; it should use this information for this kind of assessment to a much larger degree. The exchange also diminishes an already highly restricted wildlife corridor, and is likely to impact moose and lynx populations as well as amphibians that now use this for their reproductive spring migrations. Mitigations suggested in the SDEIS are inadequate, given the extensive nature of existing mines and the expansions in mining activity currently planned and permitted. The final EIS needs to consider the combined activity of this project along with other sulfide ore mining proposals and the current expansion of iron mining activity. Since the proposed land exchange involves important watersheds, I believe it may also violate the Weeks Act of 1911. Creating tailing dumps on wetlands and upper waterways that feed major rivers and Lake Superior does not seem in keeping with this law. (Since the index does not list the Weeks Act and I haven't yet found any references to it, I'm unsure if the SDEIS addresses this.) The destruction and likely degradation of thousands of acres of wetlands is also unacceptable and will be a result of this land exchange. The transfer of other wetlands to public jurisdiction for conservation is not adequate justification for the destruction and contamination of existing healthy wetlands that are now in use by waterfowl and other wildlife, and home to protected and threatened species. Those species are not going to move to the transferred area. More likely many will simply die off or experience reproductive failure. The final EIS and Section #404 need to address provisions of the Weekds Act and consider other alternatives that do not have such a severe impact on wetlands. LAN03, VEG02, WET14, WI01, WI02, WI03
- 19525 I can not be certain of this from reading relevant sections in the SDEIS, but it seems to me that one of the ways the proposal plans to replace impacted wetlands is to put soil on top of the original wetland rea that will be destroyed during production, and replant it with some wetland species. It is not possible for humans to recreate a wetland ecosystem. Cattails do not a wetland make. Wetlands are not well understood even now by scientists who have devoted their lives to studying them, but there is a general recognition of their complex, interactive components and their importance in preventing flooding and otherwise contributing to things humans value. Hence the Wetland Conservation Act. I find the wetland management proposals in the SDEIS to be in violation of Minnesota's laws, at least in spirit if not in absolute fact. ... The final EIS needs to include a way to eliminate this wholesale destruction of wetlands. COE01
- 19526 The model used for predicting groundwater contamination is completely inadequate. If even the ACE found it inadequate for their contribution to the SDEIS, it must be seriously flawed as I believe the DNR has acknowledged. It does not predict even the current conditions, and severely understates likely water flowage at sites during operations. It most certainly doesn't allow for the extreme weather events that the area has been experiencing recently – heavy spring melt-off and torrential rains. ... as I understand it the model accounts for only 5% of the current precipitation at the site. WR049, WR057, WR176, WR180
- 19527 The need for water treatment after mine closure is in violation of the law as well, which specifies that a mine must be “maintenance free” at closure. There seems to be a step down from the DEIS in groundwater protection with the unlined Category 1 tailings pit, which had plans to be lined in the previous EIS. The final EIS needs to include linings for all waste storage. WR037

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Johnna Hyde (19003)	
19528	The assumption that the bedrock will not fracture further with all the blasting and drilling is unsupportable. Resulting leakage into groundwater, local wells and water supplies is not addressed in the SDEIS, and thorough analysis of current drinking water supplies, including wells, has not been done. A revision needs to include the possibility of bedrock fracture and the impacts that would have, take into account the greater depth of mining activities than past activity, and include the possibility of contaminated water reaching local drinking water supplies and the Rainy River Watershed.	WR010, WR016, WR040, WR041
19529	The likelihood of failure of the water containment structures is not addressed, nor is there a plan for managing such an event, which is essentially inevitable giving the long-term duration of contaminated water. The recent occurrences of newsworthy environmental disasters involving unexpected spills and subsequent contamination of drinking water point to the need for including such events in an EIS, in more detail than the table that indicates probability is low and passes on responsibility to local fire and emergency responders and the state.	PD22
19530	The revised EIS needs to address how it will pay for clean-up without putting the burden on Minnesota taxpayers.	FIN01, FIN10
19531	The SDEIS is short on dealing with contaminant levels that exceed standards. History of mining in this area, including current exploration, suggests variances could be issued to permit the higher levels. There is not mention of the impact when this happens, and no suggestion that such variances would not be provided. Although standards and enforcement procedures may be set during the permitting process, they need to be addressed more thoroughly in a revised EIS, as they are critical to determining likely environmental impacts. I would suggest standards that reflect current Minnesota law, no variances, and a requirement that mining operations be stopped while maintaining payroll for any violations, with no legal recourse that could delay fixing a problem immediately.	PER06
19532	Mercury contamination is one of the most serious issues in the Lake Superior watershed, with international implications on human health. Already there is excessive mercury in the blood of 10% of newborns in the St Louis River area. Adding mercury directly (even in "very small" quantities) and adding acid to the water, wich will leach existing mercury from the rocks, will exacerbate an already serious problem.	MERC03, MERC22
19533	Since leakage at the mine site is already exceeding water quality standards for sulfates, it would be in the best interest of the citizens of Minnesota to clean this up before production starts, partly to insure that it can be done, and partly to forego court claims on the part of mining companies that they have not worsened the situation. ... The revised EIS should include an alternative that brings water quality up to the Minnesota standard before new construction is done.	WR109
19534	There seems to be a large section of the Partridge River that is unmonitored. It lies between the place where potentially contaminated water enters the river and a place just downstream of a source of clean water, a small tributary stream. With this, the contaminants will be diluted and no monitoring of this stretch that is most polluted will occur. A revised EIS should include monitoring of this stretch so that corrections can be made before the polluted water reaches the tributary stream.	WR039
19535	The contention that no contaminated water will reach the Boundary Waters, or cross over the divide between the Lake Superior Basin and the Rainy River Basin, is inaccurate. ... The environmental consequences are not addressed in the SDEIS, since such an occurrence is not even considered. It could result from fracturing, flooding, or an accidental breach of dams and dikes, and most certainly will occur within the centuries that contaminants must be managed.	PD38
19536	The Next Generation Energy Act of 2007 has as its goal of total GHG Emissions of 32 million CO2-equivalent metric tons per year. According to the SDEIS this single project will produce 707, 342 CO2-equivalent metric tons per year, that is 2.2% of the state's total! This project at best is going to contribute a small fraction of one percent to the state's GDP, employment and tax base. ... The project could end up costing the state taxpayers dearly.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Johnna Hyde (19003)		
19537	Recycling copper and other metals that the project proposes to mine uses much less energy than this kind of mining and processing. The next EIS should justify the impacts of mining versus recycling to meet the copper demands of the market, or include a recycling plant as one of the alternative actions. ... There is no mention of incorporating solar power, wind generation, or geothermal energy to mitigate the enormous energy demands this project will require. ... The next EIS must contain their plans to use renewable energy sources for at least their offices and other non-production buildings.	ALT16
19538	Given the current ability of mining operations to manage the pollutants, a reasonable alternative is to revisit sulfide ore mining in 100 years if new technology has provided better ways to extract the minerals without such a high risk of contaminating our precious waters and degrading wetlands and human health.	ALT16
<b>Sender Name (Submission ID)</b> Jolane Sundstrom (57273)		
17417	copper nickel mining uses large volumes of H2O and brings up toxic waste from in the earth. ... if sales of copper go down and the plant has to shut down temporarily the toxic runoff can continue to pollute the waterway – ground water, streams and lakes.	WR111
17418	[copper nickel mining] smells terrible	AIR10
17419	I feel we just have too great a risk here being the beginning of the clean water source for the nation and the quality of life we have come to enjoy here in MN.	SO01
<b>Sender Name (Submission ID)</b> Jon (45619)		
15905	Despoiling our priceless ground and surface water, destroying wetlands and other wildlife habitat, and ruining natural beauty in return for mere metals is almost more than I can comprehend.	WET24, WI02
<b>Sender Name (Submission ID)</b> Jon and Kia Blumenthal (21375)		
992	Until a virtually guaranteed method arises to protect water, this proven-damaging mining method is not appropriate given its proximity to vital water resources, such as the Boundary Waters and Lake Superior	WR111
1410	the risks to water--which may wind up being the more precious resource in the earth in the future--outweigh the potential short-term economic benefit [ of the NorthMet Project].	SO01
<b>Sender Name (Submission ID)</b> Jon Lee (47561)		
7106	This area is too good to destroy for short-term economic gain.	SO01
<b>Sender Name (Submission ID)</b> Jon Marcaccini (47179)		
8800	This country needs its own precious metals... This will be a showplace mine for the world, with hundreds of jobs just for protecting the environment.	NEPA01
<b>Sender Name (Submission ID)</b> Jon Read (44886)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jon Read (44886)		
8140	Despoiling our priceless ground and surface water, destroying wetlands and other wildlife habitat, and ruining natural beauty in return for mere metals is almost more than I can comprehend.	SO01
17104	[Our land is being] squeezed by increasing populations and demand from extractive industries, industries which have a long history of exploiting people and the environment, making themselves and their investors wealthy, then moving on and leaving residents and taxpayers across the country to clean up and pay for their messes.	FIN01
<b>Sender Name (Submission ID)</b> Jon Shern (43693)		
11919	I would like to see a job breakdown for the PolyMet mine to understand what jobs will be in state vs. out of state, and what pay range each job would have.	SO06
11920	I would like to see more thorough evaluation of the Sulfuric Acid Pollution. What is value of our water resource vs. benefits of the PolyMet mine.	WR001
11921	The computer model seems to make various assumptions around current conditions.	WR049
11922	What happens when failure occurs?	PD22
<b>Sender Name (Submission ID)</b> Jonathan Fribley (43309)		
15775	There is simply no precedent for maintenance of toxins for any time span remotely close to the one proposed here - 200-500 years. To make projections that far out can simply not be justified scientifically without enormous error bars. ... In short, there is simply far too little knowledge to make an informed decision about the risks and costs for the time span that this mine would remain a danger.	PD01
15776	Despite the best efforts of the DNR, it is entirely possible that time will reveal errors in thinking. This is all the more likely because of the timespan involved. In this instance, the consequence of failure is pollution of the Lake Superior watershed - too high a price for such little gain for anybody except a few Polymet stockholders.	GEN01
15777	As you are undoubtedly aware, this proposal is almost certainly to be the first of many more, should it be approved. Because of that, it cannot be accurately considered in isolation. The consequences of approval include enabling mining across northern Minnesota, including into the BWCA drainage. The EIS should properly consider the environmental costs of that larger condition of mining across the north of Minnesota.	CU04
<b>Sender Name (Submission ID)</b> Jonathan Homans (47294)		
12864	This comment letter is submitted on behalf of the undersigned doctors, nurses and other health professionals. We are concerned that the proposed PolyMet NorthMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water.	HU03
12865	Reviewing the PolyMet SDEIS, we believe that the information on mercury releases and the potential for mercury bioaccumulation is insufficient. The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	MERC16, MERC20

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Jonathan Homans (47294)		
12866	We would respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal. We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Impact Assessment (HIA) be prepared under the guidance of the Minnesota Department of Health	HU01
12868	The PolyMet SDEIS also provides an insufficient analysis of the human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and carcinogenic effects of air emissions of diesel, asbestos-like fibers, nickel and other particulates, and of arsenic releases to water.	HU01
16927	We also believe that the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (“PolyMet SDEIS”) fails to adequately assess important risks to human health from the pollutants that would be released from this project. The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the PolyMet SDEIS is particularly troubling.	PD29
<b>Sender Name (Submission ID)</b> Jonathan Lindfors (57221)		
17160	I’m concerned about long term water pollution at the site and how its mitigation will be funded. How can we guarantee the costs will be paid for by the corporate interests that have profited by the ore extraction – for over 200 years.	FIN01
17161	Also, what will be the long term impact of polluted water runoff that is not captured by the mitigation process.	WR156
<b>Sender Name (Submission ID)</b> Jordan Johnson (43385)		
15568	I understand the need for more jobs in the Arrowhead region, but something unsustainable and not permanent should not be put over something that will forever be here if we continue to manage and sustain its virginity. Jobs are temporary, land is forever.	SO01
15570	Please do not allow mining in the BWCA region.	WILD02
<b>Sender Name (Submission ID)</b> Jordan Wentz (18189)		
13421	This is not a Minnesota company, ...and it is not in [their] economic self-interest to reinvest this money into our local economy	SO06
13423	... it's not in [PolyMet's] economic self-interest to clean up this mess for 500 years.	FIN01
<b>Sender Name (Submission ID)</b> Joseph Afrhein (18187)		
13417	... the jobs that people have been talking about... a couple of hundred jobs. That's really nothing on the large scope.	SO02
<b>Sender Name (Submission ID)</b> Joseph Bauer (40763)		
10557	The technology proposed is not sufficiently proven for the proposed project.	PD32
10573	After review of the information on the Poly-met proposed project/mine I support denying a permit to the company and all involved. I am a stock holder in ALLETE and feel the economic benefit is not sufficient to take the risk to our Minnesota environment.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Joseph Cook (39324)		
12777	As an avid canoer of the Boundary Waters and northern Minnesota for the past 30 years, I urge you to listen to the voice of the people, follow the science, and think about those Minnesotans who have gone before and who have left a sustainable legacy for all....	WILD02
<b>Sender Name (Submission ID)</b> Joseph Mitchell (46955)		
10503	As a Federally protected Wilderness Area, the BWCAW belongs to all the people of the United States as a very special area of particular significance and value, AS A WILDERNESS AREA. It is not the dumping ground for the likely consequences of mining operations that will almost certainly significantly degrade the wilderness.	WILD02
10504	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	WR067
<b>Sender Name (Submission ID)</b> Joseph Pratte (54201)		
17253	Although I see the economic benefits of this mine and the boost it will bring to the local economy. There are no words to describe my utter disgust and disappointment for the proposed construction of this mine. Since I was in seventh grade I have been visiting the boundary waters every summer. As I have gotten older my love for the outdoors has grown as has my admiration for the north shore	SO01
17256	I cannot go back to the places that I love in twenty years with my children and see the kind of degradation that this mine will create.	SO01
<b>Sender Name (Submission ID)</b> Joseph W. Hejny (6078)		
1019	He has looked at the EIS and believes that reverse osmosis is the best method to treat mine discharge water and that there will not be a down stream impact to Minnesota waters.	PD28, WR190
1020	I am a PolyMet investor and proud my investment will provide quality jobs for future generations of Minnesotans.	SO10
1058	What better place than the former LTV property for a new open pit mining operation. The roads, utilities, RR, water, mill, crusher and tailing basins are all ready to be used again.	PD28
<b>Sender Name (Submission ID)</b> Joseph Wenzel (50011)		
12984	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Joseph Wilson (54217)		
17672	Think about all the buisnesses you could potentially ruin. All the people you could end up putting out of a job. Or even the homes you would wreck. You may believe the ecosystem will rebuild itself, which is true but take into consideration how long that would take.	SO02
17673	I do not think you should build a mine near the boundary waters. They should be preserved people love to go there.	WILD02
<b>Sender Name (Submission ID)</b> Josh Capistrant (16143)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Josh Capistrant (16143)		
11139	[The proposed project] compromises one of our great natural resources over the long term for a small benefit in the short term.	SO01
11140	No doubt Minnesota will be left with final financial responsibility for 500 years of clean up.	FIN10
<b>Sender Name (Submission ID)</b> Josh G (42973)		
7961	the proposal is to have PolyMet collect only 90% of the water seepage from the tailings basin and treat the water at a Waste Water Treatment Facility (WWTF) at the Mine Site. Why was 90% of the water seepage used as the basis? Why wouldn't this rate to be higher? Why should any seepage into the environment be accepted?	WR018
7963	During construction and mine operation, an open pit proposal would remove wetlands and other parts of the ecosystem. Once mining ends after approximately 20 years, part of the reclamation process is that PolyMet would restore parts of the Mine and Plant Sites and the surrounding ecosystem to native habitat. Why wait until mining ends? ...This would then be approximately 20 years that the ecosystem is not active in removing and/or filtering out environmental contaminants, i.e. CO2, Nox, and Sox.	WET13
7968	...the proposal is to backfill the East Pit with category 2 – 4 waste rock (highest in sulfide concentration). With the idea that this will mitigate sulfates and metals from entering the environment. Why is backfilling the East Pit and then flooding it a consideration for the highest sulfide content waste rock? Is there an alternative disposal process that is better? It seems as though there's a high risk in backfilling and flooding the East and Central Pit (once merged) for environment contamination and ecosystem damage.	PD15
7973	Mercury emissions to the air are estimated to be 4.6 lbs./year from the plant site; emissions are estimated at less than 1.0 lb. /year from the mine site. How far can this mercury spread throughout the environment via air transmissions? Has there been any computer modeling to predict where and how much this mercury may concentrate? This would add mercury emissions to the surrounding environment that are currently not present in this area; how large of an area may be impacted?	AIR05
7975	Would PolyMet monitor air quality before and during operations to understand if there's a difference? Would dust/particulate matter be regulated?	AIR13
7977	Are there other potential air pollutants not noted in the SDEIS? The nearby Northshore mine has fibrous (similar to asbestos) like materials within the rock formation. Does the rock that would be mined here contain asbestos like materials?	AIR03
7981	For lack of better terms, what is the total carbon footprint of the NorthMet project? By carbon footprint, I mean everything from electricity needs, furnace, vehicle fuel and emissions, etc	AIR01
7983	Regarding mercury in the water, it is stated for the Embarrass River there's a potential increase by 0.6 ng/L, while decreasing mercury concentrations in the Partridge River by 1.2 ng/L...Why would there be any allowed increase, whether there is a net decrease downstream? Are the tributaries to the St. Louis River not important by themselves? What impact would the increase of the Embarrass River have on fish, wildlife and humans?	MERC18, MERC22
7985	Within the SDEIS, I have not been able to find how much of an increase of [Lead and Aluminum] will be introduced into the watershed. What is the increase of these metals into the watershed	WR060, WR064

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Josh G (42973)	
15127	PolyMet will be responsible for monitoring and measuring of air and water quality to ensure compliance to all environmental standards. Will there be oversight from government agencies, such as the Minnesota Pollution Control Agency (MPCA), Minnesota Environmental Protection Agency (MNEPA), or others? Will there be random sampling of water and air within the direct area of the Mine Site, Pit Site, and surrounding areas to guarantee compliance?	AIR13
15129	Even with the proposed Land Exchange, there would be a net loss of wetlands, river habitat, forests, and plant life within the state of Minnesota. Currently the land in the proposed Land Exchange is doing the same, but we still also have the land at the Mine site as a functional wetland. To compensate for the net loss, PolyMet should actively restore displaced habitat even if they help fund restoration elsewhere in the NE portion of the state.	LAN06
15132	...up until the time which the East Pit would be backfilled, the proposal is to store category 2 – 4 waste rock on liners. What is the potential impact of these high concentration sulfides interacting with the oxygen in the atmosphere throughout this time? Is the only impact that there can be seepage through the waste rock via water and then it would be caught by the liner(s)? Also, the category 1 waste rock should be stored on liners to alleviate any seepage.	PD04, PD15, PD16
15133	How would the different category waste rock be separated successfully at the Mine Site? What are the environmental consequences if they are not properly separated?	PD15
15136	When mining operations end, the status of the mine site would be that the East and Central Pits would have been backfilled with category 2 – 4 waste rock then flooded. The West Pit would then be flooded creating a pit lake. What is the risk that there will be seepage from the interior of the pit(s) to the ground water? The SDEIS is not clear if there is a risk of aquifer contamination post mining. Is there a risk for aquifer contamination from the seepage of polluted water, sulfates, and/or metals from the pit(s) or pit lake once active mining ends? What is the risk of acid mine seepage?	WR173
15137	When looking at the Berkeley Pit in Butte, it seems as though the flooded pit is now a toxic waste area with water contamination concerns, etc... How will the NorthMet project be different once mining ceases onsite? I understand that there will be a WWTF at both the Plant and Mine sites, but is there a similar risk that this may end up similar to the Berkeley Pit?	PD26
15138	Why is Best Available Control Technology (BACT) or Maximum Achievable Control Technology (MACT) not required for the NorthMet project? This is one of the only in the foreseeable future that doesn't require it.	NEPA08
15139	Within the SDEIS there is also discussion that there may be an increase in sulfate levels within the local watershed. What are the impacts of increased sulfates on fish, wildlife, and humans? Again, why should the public opt to allow increased contaminant levels in the watershed? This needs to be quantified in the SDEIS and the potential impacts.	WR108, WR149
15140	How long would the WWTF need to operate at the Mine and Pit Sites? Will the Financial Assurance fully cover this duration? The taxpayers must not be liable to cover any aspect of the mining activities.	FIN05, FIN06
15141	Water is proposed to be piped between the Mine Site and Plant Site via a pipeline along the utility corridor, how will spills and leakages be avoided and prevented?	WR131
15142	What is the risk that Ammonia compounds pollute the land and waters from blasting agents used during this mining proposal?	WR013
15143	Has the United States Environmental Protection Agency (USEPA) reviewed the contents and potential impacts of this SDEIS under the Clean Water Act?	PER14

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Josh G (42973)		
15144	Who owns the mineral rights below the lands that PolyMet proposes to be exchanged for the United States Forest Service (USFS) lands? Would the USFS also have mineral rights on the lands acquired in a proposed land exchange? Is there a future potential, if the proposed land exchange occurs, but PolyMet (or other) owns the mineral rights that there may be future mining proposal(s) on the exchanged lands?	LAN04
15145	During and up until the time which the East Pit would be backfilled, the proposal is to store category 2 – 4 waste rock on liners. While the category 1 waste rock would be covered with a geomembrane. It seems as though it would be very advantageous to cover the category 2 – 4 waste rock pile in addition to placing it on liners. This could help minimize the sulfides from oxygen exposure within rain, snow, and other water sources. Has this been considered?	PD04, PD15, PD16
15146	Has underground mining been considered? Why is only open pit discuss within the SDEIS? Shouldn't we look at all possible options to ensure no or the very least intrusive environmental impact?	ALT01
15147	In my review of the SDEIS I have not seen any data discussing how floods or other acts of nature will not impact this project. The SDEIS does not include how floods and other acts of nature will be included to avoid catastrophic tailings dike breaches or other problems that would have significant environmental impacts.	WR202
15152	The SDEIS lacks a detailed monitoring plan for air and water quality and a detailed analysis of what adaptive actions could be undertaken if various assumptions are incorrect. The SDEIS should examine the environmental consequences of several scenarios by continually monitoring these parameters.	AQ30
15154	Alternatives to an open pit mine are not thoroughly investigated nor discuss in this SDEIS. All methods of mineral extraction should be reviewed for everyone to clearly understand which poses the least risk.	ALT21
15155	Detailed information surrounding the financial assurance of this project must be included. The SDEIS does not contain enough of the details or facts.	FIN08
15156	Waste water treatment plans must be studied to completely understand the duration required. Please incorporate this into the SDEIS.	WR035, WR128
<b>Sender Name (Submission ID)</b> Josh Hoban (47023)		
10922	The clean up moneys is always about a 1000th of what is actually needed. The pollution fines are just drops in the bucket, never even making them change their practices.	FIN05
10923	O yeah and all that about the jobs and community, of course this will be the usual boom and bust. 20 good years of a couple thousand jobs and forever in bad years and billions in cleanup after Polymet makes their money and moves on. ... I don't know why people would even consider 20 years of money for a private company, vs endless years of tourism to a beautiful place and money going directly into the economy and forever making it stronger.	SO02
10924	Those resources most likely will not even benefit the US, just sell them to the highest bidder, polymet cares nothing about Minnesota or the US for that matter.	FIN04
<b>Sender Name (Submission ID)</b> Josh Northey (47038)		
10939	It [the Project] has a small footprint, and is using relatively safe low impact technologies, compared to what was done over the past century on the iron range. Moreover, much of that previously mined land is now used recreationally.	PD28

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Josh Northey (47038)		
10944	There is only so much copper and nickel in the world, and eventually humanity will extract this patch of it, as well as the Manganese under Emily, MN. When just depends on how quickly scarcity drives up the value of the resources, and how quickly technology drives down the cost of extraction and environmental remediation.	NEPA03
<b>Sender Name (Submission ID)</b> Josh Sarver (54354)		
18188	It could also cause a decrease of 11 different plant species in the area.	VEG01
18189	it could make more jobs, and it could help with our mineral capacity, but I still think that wildlife is more important	WI01
18190	Copper-sulfate can kill roots, bacteria, plants, and other organic things.	VEG06
18191	If anything goes wrong, then lots of animals could die.	WI04
18192	Copper-sulfate could also affect the water, killing many organisms, in the water and otherwise.	WR107, WR108, WR115
18193	Certain cultural resources can be affected. The Mesabe (Wid) (or Laurentian Divide) would be affected, and Beaver Bay would also be affected. Areas given to the Bands, (multiple Native American Tribes), would be affected.	CR01, CR05
18194	I do not agree with the land exchange offers. It occurs in a National Forest, which should be left alone. It also only benefits one company.	LAN01
18195	If something went wrong, and the lands were polluted, then it could cost my family a lot of money to help the state clean it up.	SO02
<b>Sender Name (Submission ID)</b> Josh Skelton (18145)		
3580	The first relates to the executive summary and whether water quality standards could be met with this project, and that mechanical water treatment as part of the model of the PolyMet proposed action for the duration of the simulations in 200 years for the mine site and 500 years for the plant site. The intent of the statement and the modeling was not to predict the actual duration of water treatment but rather to determine the impacts of water quality at key points in the watershed over stated periods of time in the model. 200 and 500 years, respectively. The outcome of the model actually is stating that water quality standards will be met well into the future, not defining the timeframe for treatment.	PD28
3581	A second area of address relates to the recent measured deviation in water quality models for the Partridge River...instead of distracting from the validity of the model of the sulfate, more credence should be given to the sensitivity analysis done with the model. Simulations were run with flow as lower in the basin than 0.5 and as high as 2.4 CFS, and they still showed water quality standards will be met.	WR003, WR091
<b>Sender Name (Submission ID)</b> Josh Williams (43103)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Josh Williams (43103)		
10083	In order to adequately evaluate the potential impacts of the proposed project, the SDEIS needs to consider the financial feasibility of remedial activities at and around the mine site. As the project proposer will, of course, be financially responsible for the remedial activities, the SDEIS therefore needs to evaluate whether or not NET profits from the mine (eg. after all capital, labor, operating expenses etc. are covered) will be sufficient to cover remedial costs, and how the required financial assurances for remedial activities will be structured. To be adequate, this analysis needs to consider a wide range of scenarios for mine output, metal prices, and start-up and operational contingency costs. The analysis also needs to consider, in sufficient detail to allow evaluation of feasibility, the mechanism by which sufficient funds for remediation will be held (or access to sufficient funding otherwise secured), how continued access to sufficient funds to covers costs of remediation over time will be ensured (given the potential for hundreds of years of remedial costs), how and at what rate funds will be set aside during the projected 20-year operational life of the mine, and how this last relates to projected profit during the period of mine operation.	FIN01, FIN05, FIN08
11583	As the project proposer will, of course, be financially responsible for the remedial activities, the SDEIS therefore needs to evaluate whether or not NET profits from the mine (eg. after all capital, labor, operating expenses etc. are covered) will be sufficient to cover remedial costs.	FIN01
16141	The analysis [of remedial activities] also needs to consider in sufficient detail to allow evaluation of feasibility the mechanism by which sufficient funds for remediation will be held (or access to sufficient funding otherwise secured), how continued access to sufficient funds to covers costs of remediation over time will be ensured (given the potential for hundreds of years of remedial costs), how and at what rate funds will be set aside during the projected 20-year operational life of the mine, and how this last relates to projected profit during the period of mine operation.	FIN01, FIN05, FIN08
17779	The mine will operate for 20 years, and the impacts to water coming of the site will last 100s. Any evaluation of the potential environmental impacts of the proposed project needs to include consideration of how control of these impacts will be paid for when the mine--and the company that wants to develop it--is long gone.	FIN01
17781	An EIS that fails to consider costs of mitigation--in the form of engineering controls for site remediation and short and long term water quality treatment--as a function of projected project profits would not achieve the statutory purpose of environmental review to inform permitting. As part of permitting once environmental review is completed, permitting agencies will need to ensure that sufficient financial assurances are in place to cover the cost of mitigation measures identified by the EIS. Such considerations will be of sufficient complexity that they will be impossible to adequately evaluate during a time-constrained permitting process without a thorough analysis, as outlined above, during environmental review.	FIN11
<b>Sender Name (Submission ID)</b> Joshua Borchardt (44359)		
10362	The sort of community fostered by a materialistic desire for Earth's minerals is not the kind of community that such a beautiful and pristine place deserves.	SO02
10365	It would be quite the contradiction to have one of the most pristine and protected wilderness areas on the planet, surrounded with a perimeter of mining. That is NOT the message to be sending to our young people.	CU04
14824	I am strictly apposed to new mining operations near the BWCAW in northern MN. The area is home to the richest wildlife in MN, and major parts of the upper US. The uniqueness of the clean water, solitude, and low populations helps to improve the habitat there, as well as the overall impact in the area.	WILD02
<b>Sender Name (Submission ID)</b> Joshua Sparber (18253)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Joshua Sparber (18253)

- 13677 This project is not going to impact the entire -- as the mayor of Hoyt Lakes indicated, empty region, economically-depressed region. Another comment was the entire population of, you know, Tower, Ely, Virginia, Biwabik, the major Iron Range cities, would not currently reach the capacity of the Excel. Well, 400 jobs isn't going to make an impact on such a diverse problem. SO06
- 13679 The company is a Canadian company. The majority of the profits will leave the state in terms of reinvestment. Yes, you would have short-term environmental -- excuse me, economic improvement for a very limited amount of people, SO06
- 13680 I would make is that if you added up, my assumption is of the average wage, if every one of those 400 workers made on average \$75,000 a year, you still would get less money over a 20-year period of time, gross, than it's going to cost to build the Vikings stadium. SO06

**Sender Name (Submission ID)**    josie nelson (45166)

- 8744 I am very concerned that the SDEIS is flawed, and that this project will seriously harm water that we all must have to live WR071, WR189
- 8745 I am also saddened that it will destroy a beautiful resource in our state and habitat for animals. WI02
- 8746 Native people will also likely be harmed, since wild rice is sensitive to sulfur VEG04
- 8747 The jobs created by this project will be temporary, but the project will harm generations to come. SO01

**Sender Name (Submission ID)**    Josie Winship (10761)

- 610 I am not at all convinced that the short term goal of mining is at all worth the inevitable pollution it will cause. SO01
- 611 Nor am I convinced that that PolyMet will be able to reverse the damage to water and land to it's original healthy state. WR115

**Sender Name (Submission ID)**    Journey Roberge (15453)

- 678 sulfide mining for copper should not be allowed in Minnesota because ... PolyMet, has never operated a mine before. They are going to use unproven techniques to extract the copper from the ground. PD23
- 683 When it rains on sulfide ore waste, sulfuric acid is produced ... [and] can contaminate lakes, rivers, and groundwater but also harm human life, aquatic life, wildlife and damage whole ecosystems. WI04, WR001
- 684 mining companies often abandon their mines and leave the cleanup to taxpayers. Even though Minnesota requires companies to provide financial assurances for the cleanup, many mining companies go bankrupt FIN01

**Sender Name (Submission ID)**    Joy Barth (28695)

- 10916 they give the figure of 500 yers before the water would be salvaged again and that is likely questionable since we don't have a period of time that length to presenty prove that. At this rate we won't have any pristine water and we'll all depend on the expensive process of desalination. WR035, WR037

**Sender Name (Submission ID)**    Joy Schochet (46208)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Joy Schochet (46208)	
8780	According to Gavin Mudd (International Journal of Sustainable Development, 2013), the price of copper has steadily declined since 1900. He states in an email to the journal Science: “The critical issues already constraining the copper industry are social, environmental and economic issues. Any process intended to extract a kilogram of metal locked in a ton of rock buried hundreds of meters down invariably raises issues of energy, water consumption, pollution, and local community concerns. And such environmental and societal constraints are getting stronger” (Science, 343:722-724, 2014).	REF01
8812	Thus, the consequences of copper mining in an environmentally-sensitive and economically-fragile area are such as to preclude such mining activities, particularly in a downward-trending market for the metal. Under such circumstances, copper mines are a risky investment, and mining companies could well close or fail to undertake remediation and restoration as promised, leaving the mining site environmentally compromised at best or destroyed ecologically.	SO02
8813	The Superior National Forest (SNF) covers 3.9 million acres, of which over 445,000 acres are water, some 2,000 lakes and rivers and more than 2,000 miles of streams. It is a national treasure in that, while it is only 0.2% of the contiguous USA land mass, it is home to a disproportionately large fraction of the US’s fauna and flora. In addition, it hosts a great number and variety of transient species and provides them with sustenance, shelter, and breeding areas. Moreover, the diversity of landforms in the SNF, compared to its area, is unmatched. The impact of mining on the Superior National Forest and the Boundary Waters, as well as the Quetico Park and Lake Superior, would be substantial and detrimental. The environmental degradation, water and air pollution, the local, national and worldwide impacts of this proposal have been neither adequately appreciated nor discussed in the PolyMet SDEIS.	VEG02, WI02
8815	One of the major impacts of the PolyMet mine would be on wetlands, of which nearly 1000 acres would be completely destroyed. While PolyMet states that they will convert other (distant) areas to wetlands, it has been established by many scientific studies that such “restitution” wetlands are not at all the same as natural wetlands. They are much less biodiverse and provide much less habitat, nutrition and water services than natural wetlands. Therefore, no amount of reconstitution will suffice to replace the destroyed wetlands. Moreover, the new “wetlands” will be in entirely different areas from the ones lost. For these and other reasons, the Section 404 permit for wetlands should be denied.	COE01, WET03, WET09
8819	Degradation of water quality will be inevitable, substantial and in perpetuity. The SDEIS itself acknowledges that the water effluents and leakage from the mine site, tailings pit and processing will be polluted by heavy metals, sulfur-containing compounds and other toxic chemicals, and that remediation of water will be required in perpetuity. Water quality impairment and the discharge of pollutants into the water will have immediate, as well as long-lasting, effects on wildlife, recreation, wild rice, vegetation and humans in the entire area of the watershed.	WR115
8820	The SDEIS does not adequately address how PolyMet will cope with these issues, even for its stated period of 200 to 500 years of necessary remediation. What will be the costs of such remediation to the company, to the taxpayer, and to the environment?	PD01, PD25
8822	Since mining companies often close after a mining project is completed, no amount of assurance from the company about financial responsibility for remediation in the long term guarantees that the company will actually take such responsibility until the mine site is satisfactorily restored. That there are hundreds of Superfund sites in this country which are being treated with taxpayer funds (many billions of dollars), one has little confidence in PolyMet’s assurances.	FIN01
8823	The proposed mine would have a great impact on wildlife, concerns which are inadequately dealt with in the SDEIS. The proposed mining area is one of high biodiversity, habitat which would be completely destroyed by the mine. The negative impact on migration, breeding, and well-being of wildlife would be significant over a very large area of forest, beyond the immediate mine and tailings sites.	WI01, WI02
8824	The plant community of a large area would also be degraded. The mine would fragment the forest.	VEG03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Joy Schochet (46208)	
8825	The mine would fragment the forest. The negative consequences of fragmentation have been well-documented in many scientific studies. The damage to the fragile ecosystems of northern Minnesota would be incalculable. Any discussion of the significance and protracted effects of mining activity on the ecology of the area is minimized in the SDEIS.	VEG03
8828	The social consequences of mining activities would also be significant. Most of these issues are not addressed in the SDEIS. Among the problems which attend mining - which attracts transient workers not rooted nor invested in the area - are an increase in alcohol consumption (and bars), drug usage, prostitution, conflicts with residents, sharp increases in rental and food prices. One article documenting the negative social effects of resource extraction is "This is your town on fracking", by Elizabeth Royte, in On Earth, June, 2013.	SO04
8829	The detrimental effects of heavy metals on human health are well-documented. The proposed mine would release significant amounts of mercury, arsenic, and lead, as well as sulfuric acid and other sulfur compounds, into air and water. These pollutants are highly toxic, and have been implicated in neurological conditions and many other diseases. I	HU03
8831	In addition, there would be emission into the air of particulate matter, such as asbestos fibers and dust, which can lead to serious lung disease. Sulfuric acid itself is dangerous in that it lowers the pH of water (affecting all aquatic organisms) and it releases mercury from rock in a form which is easily absorbed by these organisms.	AIR03, WR001
8832	The proposal by PolyMet to exchange high-quality contiguous wetlands and forest land in the SNF for a variety of scattered and poorer-quality land elsewhere is unsound. No such exchange should be countenanced because of the disproportionality of the exchange. The proposed mining area is of much greater ecological value than the land for which it would be exchanged.	LAN03
8834	The rationale for mining and prospecting in the Superior National Forest appears to be i) as a source of (scarce) minerals in a relatively accessible site and ii) as a source of profit (albeit short-term) for companies and employed individuals. There would certainly be no long-term benefit for the local economy, particularly when one considers that many property owners would leave the area rather than exist with the noise, pollution and loss of natural values which would ensue. These residents provide a significant economic benefit to the communities in this area.	SO02
8835	It would also seem that little or no profit would redound to the American public, which in fact owns the SNF [Superior National Forest].	SO06
8836	Rather than continuing on the heedless path of mineral exploration, it would seem wise to consider the rationale for abstaining from mineral development within the SNF and near designated wilderness areas. We need to consider alternatives to mining rather than continuing our reckless "development" of formerly untrammled regions. For instance, we should develop recycling programs for minerals, support research to find alternatives to the use of rare metals, and energetically promote conservation of these metals.	ALT09, ALT16
8840	As frequent visitors to the BWCAW, our opportunities for a wilderness experience (the main impetus for buying property here) would be greatly diminished by the actions proposed in PolyMet SDEIS.	WILD02
8843	Additionally, the value of our property would undoubtedly be affected adversely by the possibility of extensive metallic sulfide mining in the area.	SO03
8844	As we see it, the noise and pollution generated by mining activities, the heavy traffic, and the potential damage to water and land will affect not only property values but also the present excellent quality of our experience in northern Minnesota, which is due in very large part to the relatively pristine environment of the Superior National Forest and the BWCAW.	SO02
8845	We regard the current SDEIS as inadequate and insufficient to support PolyMet's claims that it could mine without significant and permanent damage to the northern Minnesota ecosystem.	PD01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Joy Schochet (46208)		
8852	The SDEIS fails to deal with many of the critical issues in the proposals for mineral exploration near the Boundary Waters, particularly noise, degradation of air and water quality, loss of solitude and wilderness qualities, and loss or degradation of habitat for critical species, both plant and animal.	PD01
<b>Sender Name (Submission ID)</b> Joyce Blomquist (41789)		
3275	It is crucial to protect Lake Superior, the watershed and Superior National Forest from toxic pollution.	WR111
<b>Sender Name (Submission ID)</b> Joyce Harrington (33155)		
12165	I would like their children to be able to have their wilderness trips in northern Minnesota, too, as generations of the family have. However, I am concerned that that might not happen if sulfide mining is done in the area.	WILD02
<b>Sender Name (Submission ID)</b> Joyce Klees (54484)		
17989	PolyMet's humidity cell testing indicates that mercury will leach from waste rock at more than four times the water quality standard. PolyMet proposes not to conduct an analysis of the amount of mercury that will enter either the Partridge or the Embarrass River from leakage from waste rock, disturbed peat, mine pits, or tailings. An analysis was done for 28 other constituents, many of which have nowhere near the potential for impacts that mercury does. Why is this analysis not being done?	MERC20
17993	The 90-day period is insufficient time for the public to study, analyze, and comment on such a complex document.	NEPA07
17995	The mine would destroy at least 1, 700 acres of ecosystems, including precious wetlands, which provide habitat for many wildlife species. These lands are located within the Superior National Forest and the land exchange proposed would not be of equal value.	LAN03
17996	The PolyMet Project will have an irreversible effect on the environment and will negatively impact many people's economic livelihood and aesthetic enjoyment of nature. It is not worth the risk for the short term and limited benefits of sulphur mining.	SO01
<b>Sender Name (Submission ID)</b> Jspence3 (21986)		
3311	I support the PolyMet Mining project in Minnesota. It will (...) provide numerous jobs.	SO10
<b>Sender Name (Submission ID)</b> Juan M (54224)		
16733	The map [in the EIS] should be carefully looked at, and re-examined because there is a creek connected to the swamp that leads to the boundary waters, and it will pollute the water and diminish the cleanliness of it.	PD38
17357	The water should be tested to make sure that if this event were to happen, we would be able to fight it. Therefore, this should all be looked at and reviewed so we don't have to face this in the future.	WR021, WR080
<b>Sender Name (Submission ID)</b> Juanita Nelson (47514)		
11277	I agree with the Northland Doctors, They say sulfide mining releases toxic pollutants known to cause dangerous health effects like cancer, lung and heart disease.	HU03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Juanita Nelson (47514)		
11281	I have read [Polymet] will be here for 20 years but it will take 50 years to clean up. That is not worth it!!!	SO01
<b>Sender Name (Submission ID)</b> Judi (44357)		
14832	Minnesota would be “penny wise and pound foolish” to give up so much for a couple hundred jobs for 20 years. ...We’re ready to pollute the Boundary Waters, of which there is no other place on the planet like it, for a few hundred jobs?	SO01
14833	It’s not worth the risk involved when PolyMet packs their bags and moves on to rape and pillage another wilderness area, leaving Minnesota taxpayers with the cost of cleaning up their mess.	FIN01
14834	This mining has NEVER been done without leaving toxic waste in river, streams and lakes EVER.	WR023
<b>Sender Name (Submission ID)</b> Judi Mikolai (45145)		
9721	PolyMet should have to show proof that the mining can be done without contaminating the site [where] the minerals are, the millions of gallons of water that would have to be used to extract the target products, and the storage ponds that would be used to try to hold the water until it can be cleaned.	PER06, WR128
16729	Until we have the technology to truly contain water, we cannot produce contaminated waters that endanger our ecosystems, groundwater and surface waters.	PD32
16730	Other mining sites where the same processes are used are described as a "moon-scape." We love to go to northern MN. We love to camp, canoe and recreate in the quiet and beauty of the wilderness. But, I have to say, if the wilderness WERE to be damaged, we would not be visiting there like we do now.	LU04
16732	there is a surplus of copper and some other substances that are to be mined by PolyMet in Northern MN. The company would greatly, because of the high prices they could get for the minerals and metals, but the price of MN's wilderness is too high a price. The company is not even MN-based - most of the money would follow the company. There would be some taxes paid to MN, but the profits would go to another country. There would be some local jobs, but are the locals going to land the jobs.	SO01
<b>Sender Name (Submission ID)</b> Judie Carlson (57949)		
19861	There is already evidence that privately held land is being destroyed and the owners are suffering the effects of the noise and pollution.	NEPA15
<b>Sender Name (Submission ID)</b> Judith Derauf (54673)		
17880	In the short term the promise of jobs is attractive, but in the long term the environment will be irreversibly degraded. A finite number of jobs would be created for a limited number of years by the mine, with the big beneficiary being the PolyMet Corporation. Currently many businesses and jobs are dependent on tourism. ... I believe the economy, in the long run, will be negatively impacted by mining projects that are not environmentally sound.	SO01
17881	People visit the BWCA and the North Shore largely because of the pristine wilderness and natural beauty the area has to offer. The proposed mine would be located close to these national treasures and share the same water shed.	WILD02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Judith Derauf (54673)		
17882	most importantly we all need clean water and this is perhaps our area's greatest natural resource. To put our fresh water at risk is incomprehensible.	WR195
17883	The health impacts and management problems of contaminated water are issues that PolyMet will walk away from and leave for local residents to grapple with for generations.	FIN01
17884	The industry must bear the burden of proof that they will not leave an environmental disaster in the wake of their operation.	NEPA15
<b>Sender Name (Submission ID)</b> Judith Krause (16077)		
11041	Our water is a valuable resource and we cannot afford to play Russian Roulette with it for 500 or more years. To saddle future generations with the burden of clean-up from this ill thought out and risky mining scheme is criminal.	FIN10
11042	I want to keep Minnesota's valuable water resources safe and clean for future generations of humans and wildlife.	WR195
<b>Sender Name (Submission ID)</b> Judith M Swenson (54703)		
17780	NO-ONE can mine sulfide rock without releasing sulfur and sulfuric acid into the environment.	GEN01
17782	It is absurd to even suggest that the water from mining would have to be treated for hundreds of years. Nothing is treated that long in this world. Who would pay? Certainly not the mining company that has never mined anything and would be long gone in a few decades. The taxpayers of Minnesota would have to continue treating the water for centuries. NO!	FIN01, FIN10
17783	It is simply wrong to allow this company to proceed any farther with their plans when they have not demonstrated an understanding of the complexity of the problems and have no viable solutions for the ecology disaster awaiting us if they are allowed to mine.	PER35
17784	The rock is not going anywhere - let it be until it can be SAFELY mined. It is the STATE OF MINNESOTA'S mineral wealth, not the international mining companies.	ALT16
<b>Sender Name (Submission ID)</b> Judith Martell (15778)		
13707	In order for [the] ... mine to run safely there would have to be a cash deposit of 100 billion and maybe there would be enough to do a partial cleanup of what they will walk away from after they make their profit.	FIN05
<b>Sender Name (Submission ID)</b> Judith Sreaton (39556)		
6699	How many of the 350 proposed jobs would be filled by local residents rather than specialists brought in to run the mine?	SO06
6700	What has been proposed by the mining company to control pollution in the area?	PD01
6701	Who would pay for the cleanup [of releases and pollution]?	FIN01
6702	[PolyMet is] run by a foreign company and financed by another foreign company. How is it possible to hold them responsible for the massive pollution that will result from their venture?	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Judith Screaton (39556)		
6704	We must preserve [our safe unpolluted water], or it will quickly disappear.	WR195
6707	How many tourists will [the project] displace, and what would be the effect of massive pollution on our tourist industry?	SO02
13532	How is it possible to sacrifice many, many acres of precious National forest for a commercial venture of questionable benefit to Minnesotans?	SO01
<b>Sender Name (Submission ID)</b> Judith Sweno (11629)		
7416	Our community needs the jobs and we have family members waiting to get a job. ... I don't want my family members and neighbors to have to leave this area for work elsewhere. When they can have jobs here. We are a smart people and if something comes up we will fix it.	SO10
7416	Our community needs the jobs and we have family members waiting to get a job. ... I don't want my family members and neighbors to have to leave this area for work elsewhere. When they can have jobs here. We are a smart people and if something comes up we will fix it.	SO10
<b>Sender Name (Submission ID)</b> Judith Zetting (29956)		
13864	THIS GREED to squeeze any and all of anything from the world around us HAS TO STOP, OR THERE WILL BE NOTHING LEFT	SO01
<b>Sender Name (Submission ID)</b> Judy Ament (16668)		
1573	I would like to go on record Not to allow this for the sake of preserving the water resources ... it would be a short term benefit but there are too many concerns for the long term survival and preservation of water.	SO01
2039	I have been reading pro's and con's- it would be a short term benefit but there are too many concerns for the long term survival and preservation of water.	SO01
<b>Sender Name (Submission ID)</b> Judy Baxter (45412)		
11220	The idea of putting tailings and waste heaps in an unlined tailings basin, designed in the 1950's on top of streams IN ORDER TO LEAK, is totally ridiculous. Of course it would leak acid,sulfate, and toxic metal processing waste. They say for 500 years.	WR070, WR115
15626	How can you propose destroying 900+ acres of irreplaceable wetlands and damaging 7000 without looking into alternatives? These wetlands protect and maintain the area waters, and replacements outside the watershed will not do.	WET20
15627	Fish in the area already contaminated with mercury so that consumption warnings are issued. Adding more sulfide mining pollutants will make this worse, and is unacceptable.	AQ12, AQ28
<b>Sender Name (Submission ID)</b> Judy Bjork (44579)		
11816	We realize the issue of jobs has been put forth as a reason to operate this mine but we believe that PolyMet will do more to diminish, rather than enhance the overall quality of life ....	SO01
<b>Sender Name (Submission ID)</b> Judy Busse (47493)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Judy Busse (47493)		
11252	There are two critical reasons why my husband and I are opposed to giving PolyMet what it wants: first, there is no way PolyMet can assure citizens there won't be grave environmental consequences somewhere down the line and while there might be some jobs created for a time, that number could pale in comparison to damage done to people as well as to the land....	SO02
11255	if we don't want PolyMet's project we don't have any reason to want them to receive financial assistance on any level.	FIN10
<b>Sender Name (Submission ID)</b> Judy Galbraith (9558)		
192	This mine will pollute not only Minnesota waters, but the relatively pristine waters of Lake Superior.	WR111
193	There's no way PolyMet can contain or effectively treat contaminated water, which would remain polluted for hundreds of years.	WR037, WR129
194	In addition, the PolyMet mine would have a serious long term negative impact on a large part of the Superior National Forest which is the largest designated Important Bird Area in Minnesota.	WI02
960	It (PolyMet) would also destroy 900 acres (or more) of wetlands with toxic contamination.	WET24
961	Arguments have been made that we need more and more copper, nickel and mercury. But the absolute truth is that with more comprehensive recycling efforts the demand for these minerals would seriously diminish. Also, many jobs could be created if we developed more recycling programs.	ALT09, ALT16
14048	The short-term job gains are not worth the long-term and permanent environmental damage this mine would cause.	SO01
<b>Sender Name (Submission ID)</b> Judy Gribbin (31877)		
12016	WE ALREADY HAVE POLUTION IN THE GREAT LAKES WHY WOULD WE ADD TO IT BY ALLOWING THE POLYMET'S MINE COMPANY TO OPEN AND DIG A MINE NEXT TO THE PROTECTED AREAS AROUND SUPERIOR NATIONAL FOREST, AND HAVE THERE DRAINAGE...FLOW INTO...OUR WHOLE WATER SYSTEMS THAT LEADS TO OHIO AND MISSISSIPPI RIVER SHEDS THEN DOWN TO THE GOLF AND OUT TO THE ATLANTIC.	CU06
<b>Sender Name (Submission ID)</b> Judy Kreag (47536)		
12417	PolyMet's open-pit sulfide mine plan...will pollute the largest freshwater lake in the world, possibly forever!...We all deserve clean, fresh water. This earth is all we have. When the water is no longer drinkable, then what?	WR111
12421	It may bring a few jobs to the area for a few decades but will leave us an unheard of problem for anywhere from 300-500 years or more	SO01
<b>Sender Name (Submission ID)</b> Judy Lane (38437)		
11129	Will [PolyMet] invest in CLEAN-UP AND RECOVERY PROGRAMS should they arise?	FIN01
11130	[Companies like PolyMet] strip the land and contaminate the water. But the people want to have a job, so they say nothing.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Judy Lane (38437)		
13626	Our natural resources is the crown jewel we have. Not those in the ground you cannot see, but the hills, the forest, the lakes, the forest animals, but mostly the people who make this state great.	GEN03
<b>Sender Name (Submission ID)</b> Judy Ostendorff (54747)		
19124	The proposed Poly Met mine should not go forward because the SDEIS, which is seriously flawed, has not shown that mining of precious metals in rocks with sulfide can be done safely in this environment, without serious watercontamination and destruction to wetlands and habitat.	NEPA09
19125	Recent DNR documents agree that the water flow model of the current SDEIS is inaccurate. This calls into question many of the forecasted impacts to water quality, wetlands, and rare habitats. With more water moving through the site,polluted water from pits and waste rock will more easily and quickly reach lakes and rivers. It is thus likely that more area will be polluted, and that the pollution will be greater than anticipated.	WR052, WR060, WR071, WR091, WR173
19129	The SDEIS seriously underestimates the destruction of wetlands, and has an almost "fantastical" proposal for mitigation. The size of the potential wetland destruction (up to 6000 acres) is breathtaking. Much of the modeling wasbased on inaccurate water flows, so more wetlands would likely be destroyed. Secondly, bogs and coniferous swamps which will be affected, are extremely difficult to restore.	WET04, WET07
19131	the land swap is not a swap of equal value.	LAN03
19134	Habitat destruction is also not adequately addressed. In addition to the issue of more water flow than expected destroying more wetlands than expected, the number of trucks going back and forth, the 24/7 noise and vibrations ofrunning the plant and the mine will disrupt habitat.	N01
19135	The assumed performance of water capture systems in the SDEIS is of 90% or greater. This high level of performance is not realistic. Engineering controls include the seepage capture system at the flotation tailings basin, the cap and liner system and the hydrometallurgical tailings basin, and the discharge control feature for the west pit lake. Failure or under-performance of any of these features will result in water quality impacts that are not described in the SDEIS.	WR018
19136	How can we know we can treat polluted water for several hundreds of years, let alone into "perpetuity"?	WR035
<b>Sender Name (Submission ID)</b> Judy Urban (28951)		
13873	My family has fond memories of many camping trips to the Boundary Waters area. To think that our state is willing to irrevocably change the pristine nature of this very special area for the benefit of a multinational corporation whose only goal is profits is unconscionable.	WILD02
13874	No government entity has the right to make decisions that would negatively affect the health, and economic well-being of people for the next 500 years. Do not approve this threat to our state's greatest natural asset.	SO01
<b>Sender Name (Submission ID)</b> Judy Young (52182)		
13350	Strong safeguards are in place in the event anything goes wrong – for centuries in the future	FIN08
13351	Mining companies must leave the site maintenance free in accordance with existing MN mining rules.	PER04
16231	BWCAW waters remain safe and clean; potential impact on health and safety of residents and visitors be studied.	WR111

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Judy Young (52182)		
16232	This eco climate and geography is precious to the well- being of future generations; wilderness cannot be replaced with museums of what used to be.	WILD02
16233	we do not have sufficient information to guarantee environmental protections to land and water safety for wildlife and people.	PD01
<b>Sender Name (Submission ID)</b> Jukka Kukkonen (863)		
46	The Talvivaara mine was opened in Finland in 2008. It turned out to be an environmental disaster and the company is now facing bankruptcy[...]The environmental disaster was caused by waste water and treatment pond leaks in 2012 and 2013.	PD26
479	When we think about the heavy downpours and flooding that Duluth experienced last summer, there is no (financially sustainable) way to build levies that could handle that kind of extra stress.	FIN05
<b>Sender Name (Submission ID)</b> Julaine Heit (20162)		
1740	Polymet's proposed mine threatens our clean water and public health.	HU03, WR195
<b>Sender Name (Submission ID)</b> Julia Billmeier (18268)		
13888	20 years of mining is not worth 500 years of cleaning up and 500 years of nobody being able to use it or have fun or do anything there.	SO01
<b>Sender Name (Submission ID)</b> Julia Hupperts (49595)		
12325	I do not want even the slim possibility of our great state's water being polluted.	WR195
<b>Sender Name (Submission ID)</b> Julia Kleppin (23409)		
12176	The PolyMet Mining Corp. NorthMet mining project Supplemental Draft Environmental Impact Statement is clearly a threat to the water quality and environmental status of large natural areas PLUS Lake Superior.	WR111
12177	Open pit mining is the most environmentally destructive form of mining and considering that this impacts a large part of a NATIONAL PARK, how can any such permission be given to this project?	WILD02
<b>Sender Name (Submission ID)</b> Julia Kloehn (47429)		
12215	I don't believe it is morally right to destroy irreplaceable natural beauty, clean water, wild rice areas, and animal habitat for the sake of temporary profits. Nor can it be economically right either taxpayer funded cleanup for hundreds of years is just as shortsighted.	SO01
16725	The Polymet mine would reach the end of its useful life within my lifetime, and I think it's unfair that my generation as well as many generations to come would have to suffer the negative consequences of sulfide mining. Minnesota has a lot to lose [from this Project] in terms of precious cultural and natural resources, and it is not in the interest of the people in our state to make such a sacrifice.	SO01
16727	It's seen over and over again that even when people assure/expect systems to work, systems fail, and when considering the pristine natural resources of our state, this [Project] isn't a risk we should be willing to take.	PD01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Julia Kloehn (47429)		
16752	I don't believe it is morally right to destroy irreplaceable natural beauty, clean water, wild rice areas, and animal habitat for the sake of temporary profits. Nor can it be economically right either- taxpayer funded cleanup for hundreds of years is just as shortsighted.	SO01
<b>Sender Name (Submission ID)</b> Julia Nelson (41455)		
9326	My overall concerns is with the possible contamination of the groundwater ...The tailings are destined for unlined pits, including using an existing pit that is known to leak. This is the part of the drainage into Lake Superior. The Great Lakes represent 20% of the fresh water in the world.	PD08, PD10
9327	There has been a recent study (University of MN at Duluth was involved) that shows even low levels of sulfides have a notable and long-term effect on wild rice.	VEG04, WR156
9328	One of the predicted effects [of climate change] is a greater frequency of severe rains. The SDEIS does not address this.....	AIR01
14225	The tailings are destined for unlined pits, including using an existing pit that is known to leak. That doesn't just create the possibility of leaking, it essentially guarantees it.	PD07, PD10
14297	Climate change is happening. Even aside from the cause, it's happening and there is going to be continuing change through the century and beyond. One of the predicted effects is a greater frequency of severe rains. The SDEIS does not address this...	AIR01
14298	Better control in any case of the tailings and drainage from them. Line the pits, start the reverse osmosis immediately, and impose a significant fine if the standards are not met.	PD03, PD15, PD24
<b>Sender Name (Submission ID)</b> Julia Valero (48202)		
2201	Polymet does not have a plan for mediating environmental disasters if they occur	PD22
2202	If any contaminated water is released (which Polymet acknowledges will occur), the wild rice crop will see severe negative effects	WR156
2203	The majority of profits will not remain in the state of Minnesota, and Polymet provides insufficient details as to financial assurance needed to protect taxpayers in the future.	FIN10
2204	Polymet's plan acknowledges that millions of gallons of polluted water will seep into the environment untreated, and the water they contain will need active treatment for hundreds of years	WR035, WR070
2266	Polymet's primary investors have a long history of environmental destruction and failure to clean up messes such as the BP oil spill.	PD23
2273	[The NorthMet Project] not worth the [environmental] risks	SO01
<b>Sender Name (Submission ID)</b> Julia Wilber (39678)		
7367	I am concerned that the supplemental draft environmental impact statement is inadequate and the proposed mine plan would have unacceptable environmental impacts.	NEPA09

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Julia Wilber (39678)		
7368	I am also concerned that the proposed economic good that will come of the mine won't be seen by the communities that so hope for it... it is very likely that most of the jobs will be filled by professionals from overseas. This does not allow for economic prosperity to come to the communities in Northern Minnesota, and it also endangers another source of income for the community--the Boundary Waters...[The PolyMet mine] endangers the economy of those who depend on tourism.	SO06
7369	the [Boundary] Waters that are already at risk from invasive species and climate change will face another threat, and it... endangers the environment that both wildlife and humans need	WR111
14150	People from all over the state, country, and world enjoy the Boundary Waters. This protected wilderness area is a great pride of the State and a resource that should not be treated lightly.	WILD02
<b>Sender Name (Submission ID)</b> Julian Sellers (43024)		
12485	The habitat requirements of [the northern goshawk and Boreal Owl] are similar, and the proposed mine would affect them similarly. The Supplemental Draft Environmental Impact Statement does not adequately address the status and outlook for these species in Minnesota.	WI01, WI02
12490	Section 4.2.5.1.2, Species of Greatest Conservation Need, of the SDEIS contains the following:Mature upland and lowland forest is the most common habitat type at the NorthMet Project area (primarily at the Mine Site). Section 4.2.4 provides a more detailed discussion of vegetation cover and habitat types. Northern goshawk, spruce grouse, black-backed woodpecker, and boreal owl were observed in these forests (ENSR 2005). These species represent a group that generally requires large forested blocks and/or minimal human intrusion.	WI01, WI02
12493	Section 4.2.5.1.3, Regional Forester Sensitive Species, misstates the status of northern goshawk and boreal owl in Minnesota. That section states:Four of these RFSS species are state-listed ETSC species (i.e., gray wolf, bald eagle, wood turtle, and eastern heather vole) and are discussed above. Seven other species are on the SGCN list and are discussed by habitat type in Table 4.2.5-1. These species include the boreal owl ...And: The northern goshawk ( <i>Accipiter gentilis</i> ) is not federally or state-listed....In fact, the Minnesota Department of Natural Resources added both species to the list of Special Concern species in August, 2013.	WI01
12630	Audubon Minnesota believes that the Northern Goshawk should be listed as Threatened. Listing this species on the Special Concern list, as proposed by the DNR, does not properly reflect the current status of this bird and will not provide an appropriate degree of protection to ensure its future in the state.	WI01
12633	Audubon Minnesota believes that the Boreal Owl should be listed as Threatened. The proposal by the DNR to list this species as Special Concern does not adequately address the needs of this species in the State nor ensure its survival. It is reasonable to believe that this species has never occurred in high numbers in the State, and the decline in numbers over the past decade indicates that the population is in danger of becoming Endangered.	WI01
12635	With such a low population in Minnesota, and requiring such large tracts of mature and old upland forest within larger areas of other forest types, it is clear that projects such as the proposed NorthMet mine (which would actually destroy land on which northern goshawks have nested in recent years per 5.2.6.2, Biological Evaluation for the Proposed NorthMet Mining Project and Land Exchange) could push the northern goshawk toward Endangered status in Minnesota.	WI01, WI02
12638	The Determination in 5.2.6.2 ("The Proposed Action and Alternative B may impact individuals but are not likely to cause a trend to federal listing or loss of viability for northern goshawk.") does not acknowledge the precarious status of this species [northern goshawk] in Minnesota.	WI01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Julian Sellers (43024)		
12641	Section 5.2.6.3 of the Biological Evaluation for the Proposed NorthMet Mining Project and Land Exchange states: “East of the Rocky Mountains, breeding by boreal owls has only been confirmed in Minnesota and primarily in northeastern Minnesota.”	WI01
12642	Section 5.2.6.3 concludes that: There should be no cumulative effects to individual boreal owls from the Project, but there would be a cumulative loss of potential boreal owl habitat. About 640 acres of mature lowland coniferous forest and upland deciduous forest habitat that could be used by this species on the federal lands would be directly affected by the Project. The conclusion that there would be no cumulative effects to individual boreal owls is derived from the lack of any detections of the species on the project’s federal lands.	WI01, WI02
12643	Considering the specialized requirements and rarity of this species in Minnesota, the only state east of the Rockies where nesting has been confirmed, the Determination in 5.2.6.3 that, “The Proposed Action and Alternative B may impact individuals but are not likely to cause a trend to federal listing or loss of viability for boreal owl” does not acknowledge the precarious status of this species in Minnesota.	WI01
16998	... there is strong evidence suggesting that large patches of mature forests are very important to the Northern Goshawk. This habitat is currently in decline in Minnesota, and recent land management decisions are likely to exacerbate this slide.	WI02
<b>Sender Name (Submission ID)</b> Julie & Brigg Backer (33924)		
14023	It's not worth the risk for 360 jobs.	SO01
<b>Sender Name (Submission ID)</b> Julie A. Vennewitz (43952)		
6873	The negative environmental impact [of this project] will long outlast the temporary boost to the economy. It threatens to do permanent damage to Minnesota's recreation and tourism industries. Recreation and tourism could continue to provide jobs for decades to come, much longer than the proposed mining jobs.	SO01
14939	If the project causes long-lasting damage to our natural resources, especially our water, the tourism and recreation industries could be destroyed.	SO02
14940	companies come and go, and the promises a company makes disappear when it goes out of business or changes ownership. In the meantime the state, its people and wildlife will suffer the consequences for decades or even centuries to come.	FIN01
<b>Sender Name (Submission ID)</b> Julie Cahoy (39689)		
7375	My first concern would be the details of the proposed water treatment systems, specifically is there a system that has been tested that is capable of handling six million gallons a day? Have they tested the systems, how about a back up system, if they have to switch to a back up, can it handle six million gallons a day? How long will the system last, and what are the plans to replace it at regular intervals. What are the contingency plans for mishaps such as pipeline spills, accidental releases, and failures of water collection and treatment systems.	PD03
7376	I would expect at a minimum Minnesota taxpayers are protected. What are the financial safeguards that are proposed. What happens when the company goes out of business, either bankrupt or closed because its useful life has ended. Are they putting up earnest money, if so what percent of the typical cleanup are they putting up, who is going to manage the funds and safeguard them for the general public? Are they buying insurance policies, if so how do we know they will be around in 100 or 200 years?	FIN01, FIN08, FIN10
7377	What is being proposed could potentially and negatively effect one of Minnesota’s most precious resources, water.	WR195

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Julie Cahoy (39689)		
14165	...how this water treatment system is going to be paid for, and maintained and monitored for up to five centuries. The mining industry is responsible for the largest and cost costly environmental clean-ups in our nation.	FIN01
<b>Sender Name (Submission ID)</b> Julie Greenwood (16265)		
10445	No job is worth 500 plus years of unknown, possibly irreversible, damage to the environment and its inhabitants.	SO01
<b>Sender Name (Submission ID)</b> Julie Howard (40723)		
6656	Despite what proponents of the copper-nickel mines say, creating new mines within 50 miles of Ely would be extremely detrimental to our local economy. The mines will not only be an eyesore, they will also increase rail and truck traffic, which would negatively affect tourism in the area.	SO02
6658	The noise from drilling and moving material destroys the wilderness experience on the southern end of the Wilderness area near Spruce Road and Birch Lake.	N02
6660	Most importantly, there is no evidence that our most precious resource, the interconnected system of pristine waterways, will adequately be protected. Acid mine drainage in our waters is unacceptable. Sulfide-bearing rock brought to the surface will turn into sulfuric acid and leach into our waterways, resulting in irreparable damage to our biotic community.	WR115
<b>Sender Name (Submission ID)</b> JULIE HURLBUT (41054)		
13939	There is too much at stake to allow Polymet to despoil the land and water of Minnesota. Many people are dependent on well water in the proposed area, and if, as in many other parts of the nation, the wells become toxic, how will they ever be restored?	WR041
13940	[T]he most basic requirements for human health, clean water and clean air, are being sacrificed in the name of profit and a relatively small number of jobs. When will we begin to take seriously the needs of future generations for these resources. What's the sense of having a job if it means ravaging and polluting the environment which in term leads to the damaging of your children's and your grandchildren's health.	SO01
<b>Sender Name (Submission ID)</b> Julie Jeatran (38729)		
4539	3) The people who are being affected should have a say in over 6,000 acres being given away and traded for what parcels of land. Will they be accessible to us, useable by us for recreation, hunting and fishing, as valuable as what is being traded away, etc.?	LU01
4540	4) A separate environmental impact statement by law needs to be done investigating the impacts of this exchange. I have the right to see this and comment on it.	NEPA13
4543	An independent geological study shows fault lines directly below the (unlined) tailings basins. This means that the amount of seepage that PolyMet estimates has to be inaccurate. I would like to see more studies about this.	WR010, WR011, WR012, WR099
4544	No studies have been done on the impact of arsenic, mercury, nor asbestos-like fibers that will be a by-product of this open-pit mine on human or animal health. Already endangered moose populate this area.	MERC03, WI04
16762	2) It would violate Federal statutes and laws to create a windfall of profits for a private company, while causing harm to the resources and wildlife in the area. You cannot put a price on this land.	LAN02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Julie Jeatran (38729)		
16764	[The SDEIS] doesn't analyze the effect of pollution our Northland's most precious resource: WATER. What are the mine's effects on drinking water, surrounding wetlands and/or the rivers and streams we love to fish from (not to mention the contamination of the fish we then eat from them)	AQ06
16765	Stating that pollution from the mine would need to be treated for 500+ years and saying that they would responsibly do this is pure science fiction. Where would the money come from and where are the guarantees.	FIN01
<b>Sender Name (Submission ID)</b> Julie Klassen (58006)		
19849	Wild Rice, fish, & all living creatures need clean water not polluted water from the mine for 500 years.	GEN03
<b>Sender Name (Submission ID)</b> Julie Lochowski-Haney (47223)		
16618	PolyMet's study of the impact of their proposed mine states that water from the mine site will need at least 500 years of treatment.	WR035, WR189
16745	What sane person would believe that a modern company could provide 500 years of protection for Minnesota's waters?	WR037
<b>Sender Name (Submission ID)</b> Julie MacRae (16976)		
11030	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Julie Nester (21381)		
14188	The consequences of our decisions on sulfide mining are guaranteed to affect Minnesotans for at least 500 years. This project is a PONZI SCHEME in which we are all unwilling investors. It uses BORROWED capital, (the fresh water and other natural resources that do not belong to us), and invests them in a risky scheme with the promise of payoff that is too good to be true.	SO01
14189	No sulfide mine has ever operated without polluting its nearby waters. In addition, sulfide mining has never been tested in such a water-rich environment as Minnesota's boundary waters.(...) Polymet can't guarantee that the Partridge River and Embarrass River, which run adjacent to the site and join the St. Louis River on its way to Lake Superior, won't be polluted with acid mine run-off. In addition, DNR hydrology data shows that the SDEIS significantly understates the amount of water flowing in the nearby Partridge River. We should not base approval of the plan on this faulty model.	WR003, WR023
14193	We need to choose better alternatives for our hard earned dollars and precious natural resources. All Minnesotans need to rally around people in Northern Minnesota who need good, safe, healthy jobs. We need training in those communities to prepare people for jobs that provide a sustainable future, instead of obsolete, dirty, wasteful, and short-lived jobs in an industry that is declining. Minnesotans should be investing in sustainable industries and an economy that builds rather than devastates our communities.	NEPA01
<b>Sender Name (Submission ID)</b> Julie O'Leary (42934)		
8471	I share concerns specifically about the inadequacy of the assessment of full impacts to wetlands	WET24

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Julie O'Leary (42934)		
8473	that I share concerns specifically about the...complete lack of information about long term costs for treatment of contaminated water from the site and how they will be paid for	FIN05
8475	I share concerns specifically about ... the lack of any information addressing cumulative impacts of mining projects contemplated for the area and the impact this will have on the St. Louis River and Lake Superior. This is particularly concerning with regard to the potential for mercury emissions to the air and water in light of the already elevated levels of mercury in all waters in this part of the state.	AIR05
8485	I urge the DNR...to acknowledge that the negative impacts of this mine on our air, water, health, and to the taxpayers of the state are unacceptable and to stop this project from going forward.	HU03
<b>Sender Name (Submission ID)</b> Julie Varichak (21406)		
1219	the SDEIS process for PolyMet Mining's proposed NorthMet project has been sound and thorough.	NEPA16
1220	The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
1225	PolyMet will be held to the same high standard where the people and the environment will be protected. ... Developing these mineral resources in Minnesota, where we hold a high standard for safety and environmental behavior, ensures that the minerals are extracted responsibly.	PD28
<b>Sender Name (Submission ID)</b> Julie Viken (47654)		
7668	Lake Superior would be ruined by this mining.	GT01
7670	[T]his proposal does not pose any money for after they mine, and that is very important.	FIN01
7675	[I]f this proposal is approved then other similar mining proposal[s] would most likely be fast tracked and the next one would ruin the BWCA, one of the most visited natural areas in the world.	WILD02
<b>Sender Name (Submission ID)</b> Juliette Wilson (57887)		
19825	Please don't let short-term views override long-term costs.	SO01
<b>Sender Name (Submission ID)</b> June Stewart (54806)		
18291	The Minnesota League of Women Voters has determined, after considerable research on this project, that the SDEIS does not provide any reassurance that this mining will not result in irreparable harm to the watery environment in the Arrowhead.	WR107, WR108, WR115
18295	Poly Met is a junior mining company headquartered in Vancouver, Canada.It has never operated a mine before and is backed financially by the Swiss company Glencore Xstrata. Glencore has a record of massive tax evasion in third world countries. Glencore has suffered dozens of fatalities and been subject to six-figure fines for environmental breaches - 2008-2010.	SO02
18297	The mine site would be on land that is now part of the Superior National Forest that is comprised of high quality peat lands...It would destroy over 900 acres of high quality wetlands and indirectly harm another 7,300 acres .	WET24

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> June Stewart (54806)		
18298	The company proposes to excavate three enormous pits up to 696 feet deep and transport the ore to an old, dormant taconite processing plant 8 miles away that would be refurbished. Waste rock would be stored next to the pits in large, 20-story high piles covering 526 acres. Processing waste from the plant (tailings) would be added to an existing, unlined tailings basin that is currently leaking polluted water and violating water quality standards.	WR070, WR107, WR108, WR109
18299	The Partridge and Embarrass Rivers are adjacent to the mine and plant sites, respectively, and flow into the St. Louis River and then into Lake Superior. Fractures known to exist at both sites would transport pollution into ground water. Blasting would occur every 2-3 days, breaking 200,000-300,000 tons of rock per blast and causing further fractures.	WR012, WR016
18300	Sulfates and mercury released from the proposed mine would increase mercury contamination of fish, already a problem in the area. Already, one in ten infants in northeast Minnesota is born w/ excessive mercury levels.	MERC02
18301	Sulfide mining threatens our remaining stands of natural wild rice in the St. Louis River. The sulfate standard for wild rice is 10 mg/liter, a standard the waste water from the mine could not meet.	VEG04, WR143, WR159, WR162
18303	The mine will impact over 4000 acres of prime wildlife habitat and impair wildlife movement through the area.	WI02, WI03
18304	Processing the ore would increase Minnesota's greenhouse gas emissions significantly.	AIR04
<b>Sender Name (Submission ID)</b> Justin Dzelzkalns (23218)		
13975	I understand that opening a new mine means new jobs and money, but the BWCA is already a large tourist draw and supports the local and state economy. There seems to be limited upside with significant potential downside; fiscally and ethically it doesn't seem like it's worth the risk.	SO02
<b>Sender Name (Submission ID)</b> Justin Hockensmith (6039)		
1531	I ask the DNR, state legislators, and the governor to impose extremely harsh financial penalties on PolyMet if, for whatever reason, environmental destruction occurs	PER03
1532	I want PolyMet to put their money where their mouth is and allow massive financial penalties to occur if the mine does eventually leak sulfur into our state's water	PER03
<b>Sender Name (Submission ID)</b> Justin M Anderson (57253)		
17386	Regardless of what the project may be, anything backed and primarily invested in by Glencore or any group involved in anti-union, anti-worker, anti-human rights should and must be opposed. No workforce, including here in the MN northland, should be subject to the exploitations of Polymet and this industry.	SO02
<b>Sender Name (Submission ID)</b> Justine Pliska (58136)		
19987	The negative impacts on human health through water and heavy metal toxins will cost much more than the short-term benefits the jobs will provide.	HU03, SO01
<b>Sender Name (Submission ID)</b> K Smith (53557)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> K Smith (53557)		
15344	Companies w/many more years of experience mining still walk away from mines they can't afford or don't know how to clean up!	FIN01, FIN08, FIN10
<b>Sender Name (Submission ID)</b> K Theiss (39871)		
14277	As a teen, I first experienced the purity of the Boundary Waters and found out what a gorgeous heritage we share with Canada. My 6 children have also experienced this beauty...We are native Minnesotans and do NOT want such mining and its negativity to ruin what we have helped preserve...	WILD02
<b>Sender Name (Submission ID)</b> K Weller (29792)		
10985	If approved the mine will pollute Lake Superior, threaten our clean water & wildlands, and endanger public health for generations to come.	WR111, WR115
10986	A decision in favor of PolyMet's proposal would open a floodgate for more sulfide mining in a large area near Lake Superior and surrounding the Boundary Waters Wilderness -- considered by some as one of the most beautiful wilderness areas in the world.	PER07
<b>Sender Name (Submission ID)</b> K.M. Greenwood (15723)		
13821	If you need a fiscal reason not to allow our wilderness to be raped, think of our state's placement as an eco-tourism destination. Which image do we want to project, and to what audience do we wish to appeal?	SO02
<b>Sender Name (Submission ID)</b> Kaare Melby (44984)		
17416	I am concerned that the PolyMet open-pit sulfide mine would damage the wild rice that naturally grows in the Partridge River watershed.	WR156
17420	I am also concerned that the PolyMet open-pit sulfide mine would increase Methylmercury contamination of fish all the way to the St. Louis River estuary resulting from mercury and sulfate pollution and impacts to wetlands.	MERC02, MERC09
17421	I am also concerned about the long-term cost of water treatment that will be left to the public at the rate of \$3,600,000 - \$6,000,000 per year for the next 200 – 500 years. This is a huge expense that should not be left to the public and future generations.	FIN01, FIN10
17423	The PolyMet PSDEIS doesn't study impacts that could affect mercury contamination of fish in the St. Louis River estuary, let alone impacts to habitats and tribal resources in the region. A collative effects analysis of mining should be done before the PolyMet SDEIS gets finalized. That would permit us to know the consequences before opening up Minnesota's Northeast to a sulfide mining district.	MERC10, MERC24
17424	Cumulative analysis of water quality impacts in the SDEIS must include the St. Louis River and must specifically analyze impacts on mercury contamination of fish and impacts of specific conductance levels on fish.	MERC02, MERC10
<b>Sender Name (Submission ID)</b> Kacie Carlson (44179)		
15383	Minnesota law requires that sulfide mines be maintenance free at closure. Leaders of the DNR, uphold your responsibility to create a sustainable quality of life and deny PolyMet's proposal to mine until they can ensure that the entire site be maintenance free at closure.	PER04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kacie Carlson (44179)		
15384	the current leaders of the DNR uphold their responsibility to carry out these agendas which have been established in the absence of a singular biased event such as this PolyMet proposal, go through numerous government and public layers of review and approval, and are created with purpose - purpose to be utilized and defended in situations like this. Defend the DNR, your, Strategic Conservation Agenda by not allowing vagueness and future uncertainties in PolyMet's promises to be conservation-focused.	NEPA15
15385	stop this cycle of history repeating itself for our future generations by denying PolyMet's proposal to mine until there is absolutely no vagueness or uncertainty, and that all possible situations and unexpected events have established procedure that maintain the responsibilities set forth under the original permitted actions.	PD01
15386	damage to wetlands surrounding the project site and direct destruction of 913 acres of wetlands by the project are inadequately mitigated. The majority of mitigation for direct destruction will take place outside the Lake Superior Basin and therefore does not mitigate the impact of the project on the Lake Superior Basin.	WET03
15387	Deny the Section 404 wetlands destruction permit and require a reassessment in the SDEIS of likely impacts to surrounding wetlands outside the project footprint.	COE05
15388	he SDEIS also fails to explore alternatives such as comparing an underground mining alternative with the proposed open pit mine; placing waste rock back into the pit; placing liners under the waste rock pile and tailings piles; or implementing engineering solutions to reduce water drainage away from Partridge River Watershed wetlands and streams. ... Require an SDEIS which documents these alternatives and compares them with the current proposal for eliminating water contamination of any kind.	ALT01, ALT03, ALT07, ALT10
15389	The PolyMet SDEIS lacks a health risk assessment which sufficiently addresses likely impacts and effects of airborne and seepage contaminants on drinking water wells, surface waters and human-consumable resources of fish and wild rice, and on aquatic and terrestrial wildlife throughout the watershed, including threatened and special concern species. Leaders of the DNR, demand that PolyMet include a health risk assessment that adequately demonstrates their project will have no health impacts on Minnesota residents, fish and wildlife.	HU01
15390	Deny PolyMet a mining permit until all of its inadequacies are corrected with well-substantiated data and with guaranteed measures to negate adverse impacts for the entire expected duration of the problem.	NEPA09
15391	The precedent that you set in allowing a hard rock mining permit in sulfide-bearing rock will set the bar for any subsequent applications for similar mining. Insufficient regulatory attention to human and environmental safety will not only be a failure of your responsibility to Minnesota, but to those looking at your actions as a model across the United States.	PER07
<b>Sender Name (Submission ID)</b> Kahsha Hyde (36412)		
8880	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141
8890	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Kahsha Hyde (36412)	
8895	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141
8924	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141
8925	[T]he moose population is facing huge depletion. These animals are dying, and although they are being studied to find out why, further stress on their natural habitat could potentially push them over toward endangered.	WI01, WI02
8933	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141
8969	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141
9116	[My family] drink directly from the lake that borders our property...our food is mostly grown on our own land or harvested out of the woods around our home... the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens.	WR042, WR141
10471	My family doesn't buy past or rice, we harvest wild rice. Animals, which we hunt and eat, depend upon the water too. This and the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens....	SO02
10482	The minerals are not going anywhere - I urge you to move towards further - non bias- research.The development of new, less destructive mining techniques could be just around the corner. Someday the minerals will be safely accessible, then we will be able to have clean water, protected environments and mining. Until then, put the safety of our land, water, and natural systems above that of consumerism and capitalism.	NEPA03
11116	My family lives well below the poverty line, but we always have plenty to eat. ...We afford all we need to because our food is mostly grown on our own land or harvested out of the woods around our home. Our vegetable garden needs water, and during the dry weeks, when we are not able to collect rain water, we haul water from the lake. ... My family doesn't buy past or rice, we harvest wild rice. Animals, which we hunt and eat, depend upon the water too. This and the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system. My food source will be extinguished if this happens...	SO09, WR156
11120	the effects of copper sulfate mining are potentially, significantly, vastly more detrimental than those of pit mining...The development of new, less destructive mining techniques could be just around the corner. Someday the minerals will be safely accessible, then we will be able to have clean water, protected environments and mining.	PD27
11122	Perhaps the threat of human health is enough to direct attention to the severe need of a study done in greater depths about all aspects of this proposal.	HU01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Kahsha Hyde (36412)	
11345	... the moose population is facing huge depletion. These animals are dying, and although they are being studied to find out why, further stress on their natural habitat could potentially push them over toward endangered. Another species, facing endangered status because of human development is a shame to say the least, but to put our own goals ... ahead of a unique species is unforgivable.	WI01, WI02
12894	[My family] drink directly from the lake that borders our property... This and the surrounding lakes will not be protected and will be polluted past the point of sustaining life when and if the polymet mine leaks pollution into the water system.	WR042, WR141
12897	[T]he moose population is in the midst of a huge depletion. These animals are dying, and although they are being studied to find out why, further stress on their natural habitat could potentially push them over toward endangered.	WI01, WI02
12898	How do we know that this mine will not cause an increase in sick, poisoned or deformed people? Perhaps the threat of human health is enough to direct attention to the severe need of a study done in greater depths about all aspects of this proposal.	HU01
12900	My peers who are pro mining at the time being say that they will have jobs and the town will thrive again. I believe this is true - for about half the population for maybe 50 years. Then the town will fail again, just like Ely did when the Sedan mine closed	SO02
14234	500 years is a long time. The USA has only been established for half of that. How can the treatment of the mine be assured when people have forgotten and the copper has long since been used up. Revolutions, climate changes, falls of empires may happen before the mine site is no longer in need of treatment. That time line is too unstable to be realistic.	FIN01
14695	Once I can be assured that the water systems are 100% free of being potentially polluted, I too will support the mine. Until then, I live in fear that someday I will not be able to feed my family or spend my life in the area I have chosen. ...put the safety of our land, water, and natural systems above that of consumerism and capitalism.	SO01
14696	to put our own goals, which will not be affected negatively by waiting 5 to 30 years (other than different people get rich), ahead of a unique species [e.g., moose, lynx, wolf] is unforgivable.	SO01
14698	How do we know that this mine will not cause an increase in sick, poisoned or deformed people? Perhaps the threat of human health is enough to direct attention to the severe need of a study done in greater depths about all aspects of this proposal.	HU01
16081	Taconite or iron ore mining are in a completely different category than copper sulfate mining...copper sulfate mining [is] potentially, significantly, vastly more detrimental than those of pit mining.	PD27
16082	Someday the minerals will be safely accessible, then we will be able to have clean water, protected environments and mining. Until then, put the safety of our land, water, and natural systems above that of consumerism and capitalism.	NEPA03
16083	[After mine closure,] instead of imaginative locals turning my beautiful town into a center for the arts and a hub for wilderness exploration, we will have no wilderness to explore, because our impatience pushed us to mine unsafely, with out adequate research and preparedness.	SO02
<b>Sender Name (Submission ID)</b>	Kai` Hoffman (4288)	
1873	there have been no known sulfide mines that haven't polluted water systems.	WR023
1874	Others [lakes] will be harmed as well, and no tourists will want to come to northern Minnesota to see polluted lakes... The lakes will no longer be safe to ... swim in.	SO02

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Kai` Hoffman (4288)

1876 If sulfide mining starts, all those lakes [in and around the Boundary Waters] ... will eventually be polluted. After many years Lake Superior will be polluted as well.... The lakes will no longer be safe to drink. WILD02

**Sender Name (Submission ID)**    Kaia Anderson (44603)

12057 This mine will destroy an area, leave harmful pollutants, and create an unfit environment for the animals living around the area. PD01

12058 Even if it brings slight economic benefit do you really think Polynet will remain relevant and support the clean up for 200-500 years? FIN01

**Sender Name (Submission ID)**    Kaia Knutson (42754)

14442 I am opposed to the proposed sulfide copper mine. I want our Minnesota wetlands to be protected from pollution. I want our wild rice lakes to thrive without threatening the water quality or fluctuating water levels that may be caused by this copper mining. WR115, WR195

14444 I ask you to deny the land exchange and preserve the current Superior National Forest for wild life habitat and human low-impact recreation. LU06, WI02

14445 Please stop this Polymet project and Section 404 Permit. We need to prevent further pollution and destruction of Minnesota's precious wetlands. COE03

**Sender Name (Submission ID)**    Kaia Lindquist (54534)

19067 The mining will inevitably negatively effect the MN environment far into the future. Forever effecting the pH and polluting the waters. WR115

19068 The plans for protecting this pollution are not complete enough to be a safeguard. If the mining were to continue and pollute there are not concrete plans of who would be responsible nor sufficient safeguards to fix what would go wrong. FIN01

**Sender Name (Submission ID)**    Kaia Svien (54650)

17981 Clearly, the people of northern MN want and need jobs. This very real need, of an urgent short term nature, seems to be blinding folks to long term destruction and the drying up of most jobs that will happen after construction is completed. Can we not, as a state, be creative enough to look at the issue of what kind of environmentally-friendly jobs can be brought to the Range? It sounds to me like the fiscal investment needed to do so will be far less than what we all pay for damages to the environment, tourism, and natural beauty, that can never be restored, only contained. SO02

19991 The PolyMet mine sounds too destructive of our natural resources to be allowed to go through. Let's put attention to brining in jobs for the Iron Range that are not detrimental to the environment. GT01

**Sender Name (Submission ID)**    Kaija Ornes (44587)

11827 I can say that it is to dense with resources and beauty to ruin it for an economics gain for about 20 years. The consequences far out live the economic gain. SO01

11828 Do we really think that this company will be around to make sure the clean up is up to par, in 500 years? FIN01

**Sender Name (Submission ID)**    Kaitlyn Culver (54336)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kaitlyn Culver (54336)		
17315	[The mine] would affect the Ojibwe people. They are native to the land and I don't think it's fair for them to take their land away. It would also affect the Beaver Bay which could possibly ruin their habitat. Like they said in the fact sheet of cultural resources, is they are not sure whether or not it would affect animals.	CR01
17559	This land exchange would gain a lot of things such as: 2 plant species, vegetation, 9 additional plant species, etc. I think it's cool how they would gain so many things, but there are also a lot of things that they would lose. Something big that we would lose is 11 plant species. They would also lose about 1,000 acres of floodplains which they aren't super worried about.	VEG01, VEG03
17561	The Ojibwe people had the land for a long time and that's their land to have. I would decrease about 1,000 acres in different spots and let the Ojibwe people stay on their land.	CR01
<b>Sender Name (Submission ID)</b> Kane Jeffery And Melissa Rust (18241)		
13619	We are against this because we purchased this property in the effort to wipe off our carbon footprint for what we use, and we feel that the actions taken by the mine undermine our personal beliefs in that area, and they outweigh -- our beliefs outweigh the proposed economic input to that area compared to the saving of the natural environment.	SO02
<b>Sender Name (Submission ID)</b> Karen & Kalen Johnson (11571)		
2220	Perpetual pollution at the Mine Site and Plant Site (estimated at a minimum of 200 to 500 years) this is totally unacceptable	WR035
2222	We do not want our children and grandchildren's health compromised.	HU03
3241	There is not a sulfide mine in existence which has not negatively impacted the environment. We do not want Minnesota to become a huge future superfund clean-up site at taxpayer expense.	PD26
14355	Perpetual pollution at the Mine Site and Plant Site (estimated at a minimum of 200 to 500 years) this is totally unacceptable. A few, limited jobs are not worth centuries of environmental degradation.	FIN01
<b>Sender Name (Submission ID)</b> Karen B Holden (42721)		
9904	Who will positively insure for 500 years that State and Federal regulations are being followed in terms of preventing environmental and ecological degradation to some of the last near-wilderness quality areas in the United States?	PER06
<b>Sender Name (Submission ID)</b> Karen Bell-Brugger (41961)		
2158	the company will conveniently declare bankruptcy when it comes time to pay for the damage it has created. Then our children will get to pay for the horrible mess left behind.	FIN01
12880	There is a lot of talk about PolyMet having to have a fund for future clean-up of our water. What I imagine is the reality of the situation- after PolyMet has retrieved all it can from our land, it will go bankrupt to avoid having to pay for 500 years of polluted water clean-up.	WR037
12881	Then, Minnesotans in the future will have the opportunity of paying endlessly to do the clean-up work themselves, or they learn to live with a devastated landscape	LU06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Karen Cedarmoon (47300)		
16929	We see the proposed 500 year damage to the environment as absurd. Our Nation is less than 500 years old. There is not a company that has lasted that length of time yet you are considering allowing this mining company to do that kind of damage with their assurance they will clean it up. (...) no amount of money can really reasonably guarantee the clean up and safety of the earth and its people.	FIN01
16930	The small number of jobs dangled before our eyes does not come anywhere close to the jobs that will be lost due to the loss of environment that no doubt will occur	SO01
<b>Sender Name (Submission ID)</b> Karen Gardner (57981)		
19844	Toxic sulfates will destroy Minnesota's streams, river, and watersheds.	GEN01
<b>Sender Name (Submission ID)</b> Karen Graham (38865)		
5355	The plan is flawed, vague handling of data and specifications, and oblique assurances of PolyMet being a good partner in a 500+ year environmental disaster.	PD01
5356	I respectfully request that the MNDNR and PolyMet answer the questions raised by the Fond du Lac tribe of Chippewa, Water Legacy organization, and the Audubon society to their satisfaction.	CR06
5358	Write a concentration range of sulfide contamination in water treated through the reverse osmosis plant to provide clean water: - specification on the reverse osmosis system for handling the waste water; - purity of treated water in holding water.	WR143
5359	Recalculate the number of reverse osmosis systems needed to handle water purification treatment.	WR143
5360	Rewrite to require water treatment facilities be built before mining commences...Proposal stipulates that facilities won't be built for 40 years after the mining process begins. As the mine is expected to operate for about 30 years. It is also only designated to handle the mine's intentional surface water discharge.	WR143
5361	Develop program to treat seepage from mine pits, waste rock, and tailings piles to be treated to produce clean water. The contaminants will not decrease. Be sure to check the plan for these details using real numbers from outside non-mining expert sources such as environmental experts studying hydrology.	WR035, WR070, WR143
5362	Rewrite to be in high risk Category specification for permanent 526 acre, 25 story waste rock piles generated by the mining process.	PD16
5363	Rewrite to be in high risk Category specification for pile tailings on old LTV tailings site also unlined. The 1950s tailings dump site were built on top of streams to allow water to drain through the tailings. Surface and groundwater seepage at these sites currently violate water quality standards.	WR054, WR070
5364	Rewrite to be in high risk Category specification for sulfate and mercury levels. Sulfate increases methyl mercury formation. Our waters are already at high risk doesn't mean that no control is acceptable.	MERC08
5365	Rewrite specification for manganese to meet level set by MN Dept. of Health to prevent brain damage in infants, children, and adults. Current specification of 1506 micrograms/L in the tailings. This spec is 15x higher limit than set by the MN D of Health to prevent brain damage in infants, children, and adults.	WR110, WR123

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Karen Graham (38865)	
5366	Rewrite specification for arsenic output to meet level set by Minnesota's cancer risk rule. Current specification allows arsenic contamination at the tailings to increase by 417% resulting in 38.5% allowable increase for water at Colby Lake used for drinking by Hoyt Lake residents.	WR110, WR123
5367	Rewrite specification for surface water quality to meet MN water quality standards for toxic pollution in the wetlands. Proposal allows overall degradation of Minnesota surface water quality near the mine and tailings significantly below set standards.	WR112
5368	Rewrite specification to identify volume of clean water used for mining processes. No estimate of clean water tonnage used in mining process and replaced with contaminated water	WR056, WR181
5369	Rewrite proposal including detailed analyses and detailed information on mitigation to allow study of other water quality and quantity issues. USA EPA commented on lack of detailed analyses and detailed information on mitigation prevent the analyses of other water quality and water quantity issues.	WR130
5370	Undergo reevaluation of fractures and fissures using current geologic data including the report from US Geological Survey (2000-2010), MN Geologic survey, and Fond du Lac tribe of the Chippewa.	WR010, WR011, WR014, WR087, WR168, WR169
5371	Assess rock fractures due to blast vibrations at the mine site. No assessment of blast vibrations effects at mine site in proposal.	WR016
5372	Reevaluate rock conductivity for specific areas that are more sensitive such as at fissures, and fractures. Proposal only averages rock conductivity entire area.	WR010
5374	Reevaluate mine process using underground extraction which would greatly reduce forest, rare habitat, and wetland losses. The cost of maintaining water quality facilities and safeguards for 500+ years may offset the initial cost of underground mining.	ALT01, ALT13
5375	Reevaluate land exchange for loss of high biological and biodiversity significant land as classified by the MN Biological Survey. The proposal describes the impacts of their land usage as too small to consider significant for the 3014 acre mine site.	VEG02
7779	PolyMet's proposal to mine low grade ore by open pit as the only option for the company's economic advantage. Rejecting the SDEIS proposal doesn't necessarily stop bring jobs to the state only bringing jobs by the option favored by PolyMet.	SO01
10495	A DNR Hydrology memo shows that the average flow of the Partridge River is 1.5 CFS, while the GoldSim model uses a 0.5 CFS average flow. That figure was based on one year of data from 1984, a year of significant drought in the area. The memo suggests that to be accurate, additional field data may be needed beyond what is in the SDEIS.	WR003
10501	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	WR067
10511	Rewrite to require water treatment facilities be built before mining commences. Proposal stipulates that facilities won't be built for 40 years after the mining process begins. As the mine is expected to operate for about 30 years -- this action is too little too late.	PD03, WR143
10513	Rewrite proposal defining how the centuries of operations, maintenance, monitoring, and reconstruction of water treatment facilities will be handled and financed. No details are provided in proposal addressing these issues.	PD09, PD35

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Karen Graham (38865)	
10522	Rewrite the specifications for the following to meet acceptable environmental protection as determined by state agencies, state and federal laws, and state and federal standards: a. Rewrite to be in high risk Category specification for permanent 526 acre, 25 story waste rock piles generated by the mining process...b. Rewrite to be in high risk Category specification for 2 mile wide tailing piles also unlined...c. Rewrite to be in high risk Category specification for pile tailings on old LTV tailings site also unlined. ...d. Rewrite to be in high risk Category specification for sulfate and mercury levels...e. Rewrite specification for manganese to meet level set by MN Dept.of Health to prevent brain damage in infants, children, and adults...f. Rewrite specification for arsenic output to meet level set by Minnesota's cancer risk rule...g. Rewrite specification for surface water quality to meet MN water quality standards for toxic pollution in the wetlands...h. Rewrite specification to identify volume of clean water used for mining processes.	PD03, PD07, PD08, PD11, PD16
10531	Undergo reevaluation of fractures and fissures using current geologic data... Assess rock fractures due to blast vibrations at the mine site. Reevaluate rock conductivity for specific areas that are more sensitive such as at fissures, and fractures.	WR010, WR011, WR012, WR014, WR016, WR071, WR087, WR090, WR099, WR168, WR169, WR179
10534	Reevaluate mine process using underground extraction which would greatly reduce forest, rare habitat, and wetland losses.	ALT01, ALT13
10537	Reevaluate land exchange for loss of high biological and biodiversity significant land as classified by the MN Biological Survey.The proposal describes the impacts of their land usage as too small to consider significant for the 3014 acre mine site.	WI02
10586	If [Polymet] won't accept responsibility for producing a quality report, what makes you think they "plan" to do anything different when operating the mine?...Think of this again, it will take maintaining environmental processing of tons of waste spread out over acres, twice the age of country and then some....	FIN01
11506	The option for underground mining must be considered because the open pit mine has not been projected.	ALT01, ALT06
13331	The GoldSim model significantly understates the base flow of groundwater due to inaccurate and inadequate data. A DNR Hydrology memo shows that the average flow of the Partridge River is 1.5 CFS, while the GoldSim model uses a 0.5 CFS average flow. That figure was based on one year of data from 1984, a year of significant drought in the area.	WR003
13332	If the model understates base flow, all of the conclusions in the model are called into question. Pollution will move further and faster off of the site, and the amount of water that would need to be treated will be higher. This could present technical challenges, increase the costs of water treatment after closure, and add to the amount of needed financial assurance to pay for long-term water treatment	FIN05
13335	Write a concentration range of sulfide contamination in water treated through the reverse osmosis plant to provide clean water:- specification on the reverse osmosis system for handling the waste water- purity of treated water in holding water.	WR143
13341	Rewrite the specifications for the following to meet acceptable environmental protection as determined by state agencies, state and federal laws, and state and federal standards: a. Rewrite to be in high risk Category specification for permanent 526 acre, 25 story waste rock piles generated by the mining process...b. Rewrite to be in high risk Category specification for 2 mile wide tailing piles also unlined...c. Rewrite to be in high risk Category specification for pile tailings on old LTV tailings site also unlined. ...d. Rewrite to be in high risk Category specification for sulfate and mercury levels...e. Rewrite specification for manganese to meet level set by MN Dept.of Health to prevent brain damage in infants, children, and adults...f. Rewrite specification for arsenic output to meet level set by Minnesota's cancer risk rule...g. Rewrite specification for surface water quality to meet MN water quality standards for toxic pollution in the wetlands...h. Rewrite specification to identify volume of clean water used for mining processes.	PD29

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Karen Graham (38865)	
13342	Reevaluate mine process using underground extraction which would greatly reduce forest, rare habitat, and wetland losses. The cost of maintaining water quality facilities and safeguards for 500+ years may offset the initial cost of underground mining.	ALT01, ALT06
16931	the water model does not account for seasonal variations in groundwater and surface water flows on the plant and mine site. The GoldSim model should be run with accurate seasonal data to reflect the movement of pollution from the site in both high and low flow conditions... Redo the GoldSim water model to account for seasonal variations in base flow and soil conductivity	WR065
16932	Redo the GoldSim water model using assumptions based on adequate and accurate field data	WR056, WR071, WR167
16933	Gather field data to fix gaps in flow data for the Partridge River near Dunka Road, as suggested in the DNR memo written by Greg Kruse on December 17, 2013	WR165
16934	Recalculate and rewrite sections of the SDEIS based on the GoldSim water model predictions, including water quality, water quantity, post-closure maintenance, and financial assurance	WR003, WR189
16935	Recalculate the number of reverse osmosis systems needed to handle water purification treatment.	PD03
16936	Rewrite to require water treatment facilities be built before mining commences. Proposal stipulates that facilities won't be built for 40 years after the mining process begins. As the mine is expected to operate for about 30 years -- this action is too little too late. It is also only designated to handle the mine's intentional surface water discharge.	PD03
16937	Rewrite proposal defining how the centuries of operations, maintenance, monitoring, and reconstruction of water treatment facilities will be handled and financed. No details are provided in proposal addressing these issues.	PD03, PD09, PD35
16938	Develop program to treat seepage from mine pits, waste rock, and tailings piles to be treated to produce clean water. The contaminants will not decrease.	PD04
16939	Undergo reevaluation of fractures and fissures using current geologic data including the report from US Geological Survey (2000-2010), MN Geologic survey, and Fond du Lac tribe of the Chippewa. Proposal assumes no fractures under waste holding site and peat bed will never leak.	PD15
16940	Assess rock fractures due to blast vibrations at the mine site. No assessment of blast vibrations effects at mine site in proposal.	WR016
16941	Reevaluate rock conductivity for specific areas that are more sensitive such as at fissures, and fractures. Proposal only averages rock conductivity entire area.	PD15
16942	Reevaluate land exchange for loss of high biological and biodiversity significant land as classified by the MN Biological Survey. The proposal describes the impacts of their land usage as too small to consider significant for the 3014 acre mine site.	VEG02
16951	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
16952	I respectfully request that the MNDNR and PolyMet answer the questions raised by the Fond du Lac tribe of Chippewa, Water Legacy organization, and the Audubon society to their satisfaction.	NEPA11
16953	The GoldSim model significantly understates the base flow of groundwater due to inaccurate and inadequate data.	WR071, WR086, WR091

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Karen Graham (38865)	
16954	If the model understates base flow, all of the conclusions in the model are called into question. Pollution will move further and faster off of the site, and the amount of water that would need to be treated will be higher. This could present technical challenges, increase the costs of water treatment after closure, and add to the amount of needed financial assurance to pay for long-term water treatment.	WR003, WR091
16955	the water model does not account for seasonal variations in groundwater and surface water flows on the plant and mine site. The GoldSim model should be run with accurate seasonal data to reflect the movement of pollution from the site in both high and low flow conditions... Redo the GoldSim water model to account for seasonal variations in base flow and soil conductivity	WR065, WR173, WR177, WR189
16956	Redo the GoldSim water model using assumptions based on adequate and accurate field data	WR071, WR189
16957	Gather field data to fix gaps in flow data for the Partridge River near Dunka Road, as suggested in the DNR memo written by Greg Kruse on December 17, 2013	WR003, WR086, WR091
16958	Recalculate and rewrite sections of the SDEIS based on the GoldSim water model predictions, including water quality, water quantity, post-closure maintenance, and financial assurance	WR180
16959	Write a concentration range of sulfide contamination in water treated through the reverse osmosis plant to provide clean water:- specification on the reverse osmosis system for handling the waste water- purity of treated water in holding water.	WR063, WR143, WR147
16960	Recalculate the number of reverse osmosis systems needed to handle water purification treatment.	PD03
16961	Develop program to treat seepage from mine pits, waste rock, and tailings piles to be treated to produce clean water. The contaminants will not decrease.	PD04
16962	Assess rock fractures due to blast vibrations at the mine site. No assessment of blast vibrations effects at mine site in proposal.	WR016
16963	Reevaluate rock conductivity for specific areas that are more sensitive such as at fissures, and fractures. Proposal only averages rock conductivity entire area.	WR010, WR011, WR012, WR014, WR071, WR087, WR090, WR099, WR168, WR169, WR179
17131	Rewrite proposal defining how the centuries of operations, maintenance, monitoring, and reconstruction of water treatment facilities will be handled and financed.	FIN01, FIN11
17685	Write a concentration range of sulfide contamination in water treated through the reverse osmosis plant to provide clean water:- specification on the reverse osmosis system for handling the waste water- purity of treated water in holding water.	PD03
17686	Recalculate the number of reverse osmosis systems needed to handle water purification treatment.	WR143
17687	Rewrite to require water treatment facilities be built before mining commences. Proposal stipulates that facilities won't be built for 40 years after the mining process begins. As the mine is expected to operate for about 30 years -- this action is too little too late. It is also only designated to handle the mine's intentional surface water discharge.	PD03
17688	Rewrite proposal defining how the centuries of operations, maintenance, monitoring, and reconstruction of water treatment facilities will be handled and financed.	FIN01, FIN11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Karen Graham (38865)	
17689	Develop program to treat seepage from mine pits, waste rock, and tailings piles to be treated to produce clean water. Be sure to check the plan for these details using real numbers from outside non-mining expert sources such as environmental experts studying hydrology. We have many of these experts in this state alone.	WR035, WR070, WR143
17690	Rewrite to be in high risk Category specification for permanent 526 acre, 25 story waste rock piles generated by the mining process.	PD16
17691	Rewrite to be in high risk Category specification for 2 mile wide tailing piles also unlined.	PD07
17692	Rewrite to be in high risk Category specification for pile tailings on old LTV tailings site also unlined. The 1950s tailings dump site were built on top of streams to allow water to drain through the tailings. Surface and groundwater seepage at these sites currently violate water quality standards.	PD07, PD08
17693	Rewrite to be in high risk Category specification for sulfate and mercury levels. Sulfate increases methyl mercury formation.	PD11
17694	Rewrite specification for manganese to meet level set by MN Dept. of Health to prevent brain damage in infants, children, and adults. Current specification of 1506 micrograms/L in the tailings. This spec is 15x higher limit than set by the MN D of Health to prevent brain damage in infants, children, and adults.	HU03
17695	Rewrite specification for arsenic output to meet level set by Minnesota's cancer risk rule. Current specification allows arsenic contamination at the tailings to increase by 417% resulting in 38.5% allowable increase for water at Colby Lake used for drinking by Hoyt Lake residents.	HU03
17696	Rewrite specification for surface water quality to meet MN water quality standards for toxic pollution in the wetlands. Proposal allows overall degradation of Minnesota surface water quality near the mine and tailings significantly below set standards.	PD03
17697	Rewrite specification to identify volume of clean water used for mining processes. No estimate of clean water tonnage used in mining process and replaced with contaminated water	PD30
17698	Rewrite proposal including detailed analyses and detailed information on mitigation to allow study of other water quality and quantity issues.	WR023, WR042, WR128, WR130
17699	Undergo reevaluation of fractures and fissures using current geologic data including the report from US Geological Survey (2000-2010), MN Geologic survey, and Fond du Lac tribe of the Chippewa. Proposal assumes no fractures under waste holding site and peat bed will never leak.	WR012
17700	Assess rock fractures due to blast vibrations at the mine site. No assessment of blast vibrations effects at mine site in proposal.	WR016
17701	Reevaluate rock conductivity for specific areas that are more sensitive such as at fissures, and fractures.	WR007, WR008
17702	Reevaluate mine process using underground extraction which would greatly reduce forest, rare habitat, and wetland losses.	ALT01, ALT13
17703	Reevaluate land exchange for loss of high biological and biodiversity significant land as classified by the MN Biological Survey.	VEG02
19037	The option for underground mining must be considered because the overall cost of the open pit mine has not been projected. PolyMet has considered initial costs only. PolyMet has their profits as prime consideration. They are not partners with the state of Minnesota.	ALT01
<b>Sender Name (Submission ID)</b>	karen heegaard (21214)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> karen heegaard (21214)		
12418	What is the plan for catching and monitoring all water exposed to sulfide tailings for 500 years given fractured bedrock and fluctuating water tables? How does a mine that needs hundreds of years of monitoring comply with Minnesota law that requires mines to be maintenance free at closure?	WR037, WR090, WR130
12425	The financial assurance and contingency plans are inadequate for what we know will be needed let alone what we cannot foresee at this moment.	FIN05
<b>Sender Name (Submission ID)</b> Karen Johnson (39701)		
6426	I grieve that we are so enamored of business and money that we will risk ruining these waterways and woods that cannot be redeemed after businesses ruin them.	SO02
12954	I grieve that we are so enamored of business and money that we will risk ruining these waterways and woods that cannot be redeemed after businesses ruin them.	SO02
14020	Please don't ruin the water and woods in order for some company to make money. There are things in this world that aren't replaceable and once water, air, and land have been poisoned there is no way back. Surely our next generations deserve to have their inheritance protected.	WILD02
<b>Sender Name (Submission ID)</b> Karen L Dingle (48645)		
12811	A quick review of the XStrata labor and environmental history in the more than 100 copper mines they own world-wide shows that we cannot [be trusted]. They routinely violate laws and standards with impunity and seem to be large enough that they are not held responsible for their actions.	PD23
<b>Sender Name (Submission ID)</b> Karen Lackner (10854)		
12461	Plus I found a statement about eagles in and around the proposed mine site that was a complete fallacy. They obviously were 'not' looking up. My husband and I have seen with our own eyes eagles maturing. That is changing from their brown head to white heads. Hence, there are obviously nests. The same goes for osprey. And I would like to add eagles [do] live, hunt, fish, etc... around small lakes. The report stated "that they are found around large bodies of water so eagles will not be affected." This simply is not true.	WI01
<b>Sender Name (Submission ID)</b> Karen Ladner (9328)		
932	the unknown impact to the land, wildlife and BWCA as a whole is to risky given the facts as they state them to be.	WI13
<b>Sender Name (Submission ID)</b> Karen Main (57170)		
18693	Please do not permit PolyMet as the pioneer in sulfide mining. The company's lack of experience is a red fla[g] for its ability to cleanup, to insure proper pollution controls in the process. Surely the abysmal rating on its initial EPA proposal gives sufficient cause to turn down the application.	NEPA15
<b>Sender Name (Submission ID)</b> Karen Pearson (42757)		
14459	Its as if we are selling our "soul" – our pristine environment and water supply for a very short-term gain in jobs – 20 years compared to hundreds of years of treating waste water!!!	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Karen Pearson (42757)		
14460	Polymet could be gone in 20 years, or less, and MN will have a massive pollution issue to deal with. Will those jobs even be for our existing MN people?	FIN10
<b>Sender Name (Submission ID)</b> Karen Ringsrud (39277)		
7204	sulfide mining of this sort has never been done safely, without environmental damage, anywhere in the world.	SO01
<b>Sender Name (Submission ID)</b> Karen Stady (57179)		
18667	I strongly believe that the BWCA needs to be preserved and protected for the enjoyment of all people, now and for future generations. Mining near this area isn't worth the risk of contaminating it.	WILD02
18669	If there is mining in the watershed, contaminants will be washed into the bodies of water. Please put the environment ahead of profits.	SO02
<b>Sender Name (Submission ID)</b> Karen Thompson (35164)		
13052	And, the possibility of a few jobs being prevented doesn't equal hundreds of thousands of people losing their natural resources which were purposely saved for their enjoyment and healthy living.	SO01
<b>Sender Name (Submission ID)</b> Karen Williams (45874)		
10267	Nonferrous sulfide mining with its consistent historical record of pollution and SDEIS projected 500 years of water cleanup should never be seriously considered. ... This kind of mining has never been successfully nonpolluting in similar environments. A brief Internet search reveals numerous lawsuits against mining companies for environmental damage, water pollution, and human health issues.	HU03, WR023, WR115
10271	...sulfuric acid pollution is toxic to aquatic ecosystems...Dangerous contamination of water is inevitable which would destroy wetlands, pollute underground water, rivers, and lakes, and endanger fish and animal habitat. The current decline of the moose population may be related to water issues.	AQ08
10273	Of course, human health would be in jeopardy.	HU03
10277	Loss of tourism dollars would negatively impact the economy when the recreational opportunities and beauty are lost due to sulfide mining.	SO02
10279	...only 25% of the proposed 360 permanent jobs would be local hires. Much is in jeopardy for only 90 jobs. Little financial security has been provided by NorthMet for the inevitable clean up - expected to be more than 500 years worth! It appears that taxpayers...would be responsible for the burden of cleanup at astronomical expense. Other states now require hundreds of billions of dollars to be held for reclamation and clean up.	FIN01
<b>Sender Name (Submission ID)</b> Kari Block (44300)		
11849	I do not want this in our water supply. Nothing is 100% safe. This could cause severe ecological consequences.	WR195
<b>Sender Name (Submission ID)</b> Kari G Wenger (54516)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kari G Wenger (54516)		
19178	My first concern is around the ability for the MDNR to secure the compensatory measures for the detrimental aspects of this mining project.	FIN01
19180	Even if Polymet did bring 300 jobs at \$50,000 a year to StLouis County for the 16 years of the project that would be \$300 million... We have an estimate of environmental costs up to \$160 million for the first 16 years followed by \$3.5-6M a year there after for a estimated minimum of 200 years so that is \$1.360 billion (yes, that's a "B" for "Billion").	SO07
19182	The environmental methods for minimizing the water pollution have not been used before and are un-tested in real life situations. There is a real possibility that the clean up could cost substantially more. How can the MNDNR secure this need? What if clean up costs more than Polymet made on it's mining? Or even the worth of the whole company?	FIN05
19183	Financially how is the MNDNR going to get a company to put aside and continue to pay for their environmental impact when the people and the company are long gone and the environmental costs are hard to estimate?	FIN01, FIN05
19184	How is the MNDNR going to guarantee that the next 17 generations of people (taxpayers) are not going to be paying for the mess Poly Met leaves behind?	FIN01
19185	in no way is there enough money put aside by Poly Met to pay for the decades-- and even centuries-- of clean-up it will require.	FIN05
<b>Sender Name (Submission ID)</b> Kari Jacobson (38849)		
5127	I am deeply concerned by the modeling results in the SDEIS that show water must be treated in perpetuity to prevent the St. Louis, Partridge, and Embarrass Rivers from becoming heavily polluted by copper, lead, sulfate, aluminum, and other pollutants.	WR115
5128	However, NEPA documents such as the SDEIS for PolyMet have repeatedly shown that they are not reliable in predicting water quality problems (Maest and Kuipers, 2005 Predicting Water Quality at Hardrock Mines).	WR023
5129	This is glaringly clear in PolyMet's SDEIS, as it was recently discovered that the models predicting flow rates and hydrology in the Partridge River are deeply flawed. The claim in the SDEIS that no water quality exceedances will occur during or after mining is based on this flawed model, and so any predictions about water quality and quantity based on these models must now be ruled out as false. The groundwater models in the SDEIS are also flawed and seem to claim that no impacts will occur outside the area of permitted action.	PD29, WR003
5130	The Minnesota Pollution Control Agency's track record in regulating taconite mines on the Iron Range is not good, and it is likely that there will be little political will to enforce regulations when PolyMet begins to have its own water quality exceedances.	PER06
5132	Water treatment for centuries has never been done, and the probability of such long-term water treatment being successful is highly unlikely. To propose such a thing as a matter of course is deeply immoral and saddles future generations with a terrible burden.	WR128, WR195
5134	PolyMet and mines like it are allowed to dump toxic tailings and overburden into streams and wetlands because of two mining loopholes in the Clean Water Act. I support the National Wildlife Federation's call to the EPA and the US Army Corps of Engineers to close these two loopholes through a rule change.	PER09
5138	The Clean Water Act's "waste treatment system exclusion" should apply only to manmade waters and the definition of "fill" should be amended to exclude waste disposal.	PER09

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kari Jacobson (38849)		
5141	PolyMet downplays the direct and cumulative impacts the mine will have on the landscape. Losses will include 1,741 acres of Minnesota Biological Survey sites of High Biodiversity Significance; 698 acres of Jack pine/black spruce forest, which are considered imperiled/vulnerable in Minnesota; 912 acres of high quality wetlands; and portions of one of only twelve known populations of floating marsh marigold in the state.	VEG01, VEG02, VEG03
5143	PolyMet's operations will constitute a significant barrier to wildlife migration, and the wetlands lost will both release the carbon stored in these systems and prevent future carbon sequestration.	WET13, WI03
5149	The loss of both land and access for band members from the Bois Forte, Grand Portage, and Fond du Lac Bands is of deep concern. Not only will access to these areas be lost, but as the surrounding natural systems become degraded, the fish, game and wild rice resources will continue decline.	VEG04
5151	The Iron Range and surrounding areas support a strong economy based on tourism, hunting and fishing, and enjoyment of high-quality natural resources. We should be in a mindset of preserving these natural resources, not discussing ways to degrade them for the sake of extractive industry and the short-term (20 years) economic impacts that PolyMet claims will come with the construction of a mine.	SO01
<b>Sender Name (Submission ID)</b> Kari Sealund (34650)		
13252	Also in the Penokee Range Mining done by GTAC, rocks containing asbestos form minerals have been found causing much alarm about mining in that area.I have grave concerns about these project's potential impacts on our region's natural resources and public health...	HU03
<b>Sender Name (Submission ID)</b> Karin Winegar (10751)		
8052	The mine will have tragic environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR115
10766	It seems to me that it would be saner, safer, cleaner and cheaper to use state funds to employ all these willing workers in green or at least neutral jobs than to allow the destruction of our north country water. Jobs, certainly, are a priority, but not short term and not at this cost.	SO02
10768	The mine would be in our Superior National Forest lands--how can the state consider allowing public lands to be exploited (and certainly polluted, possibly permanently) for private investor profit?	LAN02
12254	I learned that the numbers used for stream flow were hugely underestimated by the company and the first Environmental Impact Statement therefore got a failure grade by the EPA.	WR003
19940	It would be wise and more economical both the short and long term to provide good jobs (using state funds of necessary) than to expect or trust a mining company to provide well paying, long term significant numbers of jobs in northern Minnesota.	SO01
19956	Our northern water and Superior National Forrest should stay protected and intact. It is a public resource, not a site for corporate exploitation and profit of international investors.	GT01
<b>Sender Name (Submission ID)</b> Karl Koenig (1942)		
102	mining activities are not consistent with the [US Forest Service] management objectives	CU09
<b>Sender Name (Submission ID)</b> Karla (44815)		
7745	I do not believe this can be done without serious harm to water quality, wetlands and wildlife habitat.	WET24, WI02

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Karla Faith (40168)		
6280	Mapping done by the PolyMet miss represent the boundary of the 100 mile swamp implying that the drainage of the swamp is in one the direction only and away from the boundary waters. In the maps drawn in the US government atlas <a href="http://www.nationalatlas.gov/streamer">www.nationalatlas.gov/streamer</a> the 100 mile swamp flows into two watershed areas. One of which drains to the boundary waters.This contradiction in mapping presents evidence that danger to the boundary waters is being under reported in the environmental impact statement .	WET19, WR024, WR080, WR081, WR175
6291	At a minimum plans for hydrologic testing before operations and continual monitoring of water during mining operations flowing from the swamp in both directions is nessasary...Lacking this basic protection PolyMets proposal is deficient for clear assessment of the danger to the water flowing to the boundary waters.	WR071, WR080, WR081, WR139, WR167
<b>Sender Name (Submission ID)</b> karlene plante Jim Etzel (44897)		
8173	This new proposal should not be considered as it will cause a significant amount of damage to many acres of wild habitat for many creatures, both terrestrial and aquatic.	WI01, WI02
17106	Tell the mining company to start mining the many dumps throughout the United states for the metals they seek. There should be plenty of it there.	NEPA06
<b>Sender Name (Submission ID)</b> Karol Gresser (54642)		
18012	The biggest loss to me will be the enjoyment, beyond a dollar vlue, of our wilderness and the birds, fish, animals, plants and trees on the polluted land and water.	WILD02
18014	The consequences...to our people if this pollution is allowed, may be economic loss, loss of property values, physical health, mental health, and morale. We will also have economic losses to the state and our people from the loss of tourism and summer residents.	SO01
<b>Sender Name (Submission ID)</b> Kate Crowley (6112)		
1038	The owners of this proposed mine can offer us all the assurances in the world that they will be good stewards and guarantee us that the pollution created by the dangerous chemicals created by and used in this mining process will not impact or impair our waters. There WILL be pollution and it WILL make its way into our waters, whether surface or underground. The studies have shown that these polluted waters would have to be treated for hundreds of years.	WR035
1039	This proposed mining project will give short term financial gain to an international company and some residents of the region, but the overall benefit will be far, far less than the overall negative impact.	SO01
1083	The studies have shown that these polluted waters would have to be treated for hundreds of years. Who of us alive today can guarantee that people in the future will have the funds or ability to sustain this sort of mitigation?	FIN01
<b>Sender Name (Submission ID)</b> Kate Fitzgerald (44597)		
11841	I believe the project's risks to human health ...One of my top concerns is mercury.Having attended a very detailed and well-supported presentation by NE Minnesotans for Wilderness advocate Jane Reyer and former State Representative Frank Moe in Grand Marais on Feb. 19, everything I learned leads me to the conclusion that the PolyMet SDEIS analysis of mercury risks is misleading and inadequate. I learned that impact of lead, aluminum, and manganese in water causes damage to the human brain. That air emissions of nickel and other particulates, diesel, and asbestos-like fibers can lead to cancer, as can arsenic.	HU01

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Kate Fitzgerald (44597)

11843 I am alarmed that there is no reference in the SDEIS to potential human harm--notably our most vulnerable community members: infants, children and elderly people. Additionally, the SDEIS does not asses worker at-site risks or residential well risks. Its lifetime risk assessment of 30 to 40 years is half what it should be. HU01

11845 The SDEIS does not take into account the effect of toxic pollutants when accumulated in fish, game, and wild rice--notably the effects these toxins have on high-level consumers of these products, including regional tribal members, low-income families, hunters, fishermen, and countless children and elderly people. SO04

15296 That air emissions of nickel and other particulates, diesel, and asbestos-like fibers can lead to cancer, as can arsenic. AIR07

**Sender Name (Submission ID)**    Kate Flynn-Kitzmann (22678)

3435 There is no way this company will be in existence to cover cleanup costs and the money they set aside will not be enough. FIN01

3436 Many businesses in that area depend on tourism; pollution of the area would cause them to fail. SO02

14889 Due to the unavoidable pollution effects of sulfide mining and high environmental and monetary costs I strongly urge Minnesota to say NO to this mine. GEN01

**Sender Name (Submission ID)**    Kate Mahonen (54348)

17614 The Copper-Sulfate Mining is a big project and I don't think it will benefit Minnesota enough to make it worth the tune, land, and money that it would take to go through with the mining. Yes, it would create jobs in Northern Minnesota, but is that really the only positive thing that will come out of all this? We use all of this land to create jobs in Northern Minnesota and it's not like the jobs will be there forever. They will be filled for the 20 year span when the mining will take place but after that it will be back to square one with 13,000 acres of land destroyed from mining. SO06

17615 The Polymet Mining will have a large effect on the cultural resources being that there are four or five locations that would be affected from this mining process. CR05

17616 The Land Exchange is another big problem I see coming from the mining. The company PolyMet, would like to use a bunch of public land as well as gain private land. I don' t think it makes one bit of sense to lose a bunch of public land so that a company can mine it, and then leave it as a piece of crap that will never be the same agan1. This mining would affect me in major ways. We use this land and its what makes Minnesota, Minnesota. LAN01

17684 [Because of my exposure to this project] now I realize how many dumb things could happen to our state without the voices of our local citizens being heard. GEN03

**Sender Name (Submission ID)**    Kate Smith (58152)

20028 What seems to be missing in the EIS is an accounting for the flow of money both as future costs and benefits. Without that information, it is impossible to know if the project is viable and environmentally sound. SO07

**Sender Name (Submission ID)**    Kate Winsor (44051)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kate Winsor (44051)		
7589	I am especially concerned about the impact such a mine will have on resident, nesting, and migratory birds.	WI01
7601	I am also concerned about the impact to the Superior National Forest.	WILD02
<b>Sender Name (Submission ID)</b> Kate Zimmerman (54360)		
18220	the proposed project could affect the endangered or threatened species that live in this area. They could be affected by the noise, traffic or vibrations caused to their habitats by the projects. Their habitats could also be destroyed or removed by the construction of the mine. They could also be affected by water pollution or changes in the quality of the water or the air caused by the waste products of the proposed mine.	WI01, WI02, WI04, WI05
18221	Another reason that I do not support the project is the effect it could have on the Ojibwa that live in this area. The waste products from the project could affect the animals and plants in that area. Some resources that they use could be affected as a result of the proposed project. The proposed project could also affect other cultural resources that are located in or near the area of the project.	SO02
18222	the project will affect the quality of the water in that area. ...The project could add to the water Mercury that might be present in waste materials. Metals could also be released that will affect organism in the water even if it is a low concentration of the metals. It could also add sulfate to the water from the chemical reactions of the waste products. This sulfate could affect the growth and viability of wild rice that is grown on the rivers.	WR107, WR108, WR156
18223	The proposed project could also affect the wild rice that is grown downstream of the site for the project. Wild rice is an important environmental resource of Minnesota and also has a cultural significance to the Ojibwa people of Minnesota.	CR01
<b>Sender Name (Submission ID)</b> Katelyn Soukkala (15080)		
366	Sulfuric acid will lead to the production of toxic heavy metals in water. This will lead to the methylation of mercury. Methylmercury is the kind that accumulates in fish which can put humans in danger of having mercury toxicity.	HU03
375	Another reason that I disagree with letting PolyMet mine in Minnesota is ... Cutting down the forest would not only kill many plants and animals, it also would destroy peatlands.	VEG03
376	The final reason that I oppose mining near Babbitt and Hoyt lakes, Minnesota, is because the mine would only be open for twenty years and there would be over five hundred years of environmental damage.	WR115
379	It seems like a huge habitat loss for such little gain.	VEG03
383	If [PolyMet] were to figure out a way to protect the environment, I would reconsider my opinion. Too much of our ecosystem is at risk with the current mining plan.	PD01
1816	Sulfide mining has a few benefits, however I believe the detrimental impact it will have on our environment outweighs all of the potential gains.	SO01
<b>Sender Name (Submission ID)</b> Katharine Rauk (52349)		
17014	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies	WR060, WR181, WR182, WR189, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Katherine D. Doerr (19984)		
1620	I am shocked that the state of Minnesota is considering this proposal in light of evidence that this project threatens the quality of a major water shed and would create serious air pollution in a highly valued tourist area.	AIR11
1621	Please consider the value of our state’s public health, especially the air and water resources, which would be prohibitively costly to rectify, if damaged.	HU01
1622	The long term costs to our northern communities with the loss of safe drinking, bathing water and breathable air cannot be overlooked. The idea that providing jobs is worth such a trade off is ludicrous and very short sighted	SO01
<b>Sender Name (Submission ID)</b> Katherine Doyle (41813)		
2040	If this does become mechanically and financially feasible, please make sure the mining companies are able to pay for the substantial costs of dealing with the pollution. The unmeasurable and unpredictable long term costs should not be shifted to the tax payers.	FIN01
2041	Although mining jobs are important to Northern Minnesota, a healthy habitat for humans, animals, and plants is certainly more important.	SO02
15423	the Minnesota DNR's first job should be to do no harm and protect the environment.	PER35
15424	the risk is very real and should not be tolerated by an agency with the responsibility of protecting our precious environmental resources. Pollution is not progress, and jobs which pollute the environment are not blessings.	SO01
<b>Sender Name (Submission ID)</b> Katherine G Lewis (54807)		
18310	The pollution could go on for years, maybe hundreds of years, into the future counting the public to be taxed for cleanup	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Katherine G. Lewis (39022)		
4989	Please do not let centuries of environmental damage occur in exchange for brief commercial gain. We should be recycling our copper rather than selling it abroad and doing unnecessary mining here.	NEPA06
<b>Sender Name (Submission ID)</b> Katherine G. Pohlman (43022)		
9562	the biggest damage to the environment would be allowing PolyMet Mining, Inc. to tear down more than 6,000 acres of federally protected land to further its profits. The proposed land exchange with the United States Forest Service does not meet the same standards the other enhancements in the new draft were held up to. PolyMet should not request a land exchange for some of the surrounding forest. The mine would make do without the land swap, and there is no reason to remove part of a natural forest when there is plenty of land to be developed around the proposed sight that does not belong to the forest.	LAN01
9567	NorthMet itself is located in the St. Louis River watershed, so although the project would not directly contaminate Lake Superior, it would aid the lowering of the water quality in the St. Louis River watershed, which eventually leads to Lake Superior. Practices at the mine would lead to an increased level of minerals and metals in the lake and in the river and its surrounding watershed.	WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Katherine G. Pohlman (43022)		
9568	Once Mercury gets into the water, it would be ingested by fish and other animals living there and eventually ingested by humans who eat the food produced by Lake Superior and the St. Louis River. Bioaccumulation would occur and the human population in Minnesota and surrounding areas that rely on food from the Lake Superior area would eventually be affected as well. Major plans to prevent this situation from occurring should be a prerequisite to allowing the mine to be built in the first place.	MERC02, MERC03
9569	By constantly digging for more natural resources, topsoil would have to be removed, the amount of runoff would increase and the stability of the soil would decrease in surrounding areas.	GT15
9570	... it would take years for the soil to be in the correct condition for trees to once again grow there after PolyMet Mining, Inc. has collected all the "usable" resources it could find. ... PolyMet should develop a plan to restore the land to proper uses before being allowed to use it for the company's own purposes...there should be an effort made to restore the land usability instead of leaving it as a barren wasteland once there is nothing else to be mined	VEG05
9576	Deforesting this area in order to mine it for its natural resources would reduce the air quality of the region and the surrounding ones.	AIR01, VEG03
9577	The NorthMet mine would produce toxins such as sulfur dioxide, nitrogen oxides, greenhouse gases, particulate matter and dust.	VEG07
9579	Although foliage cannot help extract harmful particulate matter and dust from the air, it can contribute some protection from the other three emissions [sulfur dioxide, nitrogen oxides, greenhouse gases] from the mine. Without the trees, no matter what plans are put in place to reduce the emission of toxins, the amount will always be greater than if the trees were never cut down in the first place.	VEG07
9580	There are other alternatives to the proposed plan ...One possibility is that PolyMet Mining, Inc. does not build NorthMet or has a land exchange in the area at all and has its plan rejected completely. This would leave the land the way it is now and have no detrimental effects on the surrounding environment. It would hurt the economy that would get a boost from the jobs offered at the mine, but those jobs can be made up somewhere else.	SO02
9590	...there are already mines in the area of the future NorthMet one, so the detrimental actions of this mine would build upon those of the already existing ones. This is not a problem of creating the first mine in the area, but creating yet another one.	CU04
9591	The stress another mine in the area will put on the environment is already big enough without the stress of deforesting more than 6,000 acres of forest that could otherwise attempt to offset the detrimental effects the mine will have on the environment. Accept the building of the mine, but not the deforestation of the Superior National Forest.	LAN01
<b>Sender Name (Submission ID)</b> katherine lewis (41821)		
2043	Please do not let centuries of environmental damage occur in exchange for brief commercial gain. We should be recycling our copper rather than selling it abroad and doing some unnecessary mining here.	PD01
2045	Please do not allow centuries of environmental damage to occur in exchange for short-term personal gain. We need to recycle copper, not sell it overseas, and not mine it unnecessarily here. This mine will create some temporary jobs but cause enormous damage on public lands.	SO01
<b>Sender Name (Submission ID)</b> Katherine McClure (58125)		
19894	500+ years of pollution is too long for so few jobs and so little money	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) Katherine McClure (58125)</b>		
20025	We would save money by funding 350 jobs instead of paying for clean up later. Let's find 350 green jobs or environmental jobs up north.	SO01
<b>Sender Name (Submission ID) Katherine Taylor (11265)</b>		
2001	A large copper mine would boost the economy in the state of Minnesota, but a huge concern is the impact of polluted runoff on waterways in the area. This is the reason I believe an open-pit copper mine should not be built.	WR195
2002	The chemical byproducts of copper mining, such as sulfuric acid, run into nearby rivers and wetlands. This can cause major environmental issues with the Boundary Waters Canoe Area Wilderness, and the St. Louis River, which flows directly into Lake Superior.	WET24
2003	Sulfuric acid runoff can kill many important species of fish, and indirectly alter the food chain by reducing food availability for birds and other mammals.	AQ08, WR001, WR113
<b>Sender Name (Submission ID) Kathie Cerra (41804)</b>		
2037	Sulfide mining of this sort has never been done safely, without environmental damage, anywhere in the world.	PD26
12021	The extensive pollution of groundwater, surface water, and Lake Superior is too great a cost for jobs that would last only 20 years.	SO01
12023	The mining and extraction process would result in contaminated water that requires treatment for 200-500 years.	WR035
<b>Sender Name (Submission ID) kathleen (44390)</b>		
10451	We also do not see adequate information about the impacts on wildlife, including moose and lynx... There should be more research about these effects.	WI01
10453	This is a public health concern. Already the babies of this watershed have 10 times higher mercury levels. Aluminum and lead levels would increase.	HU03
10454	The EIS also states that stockpile waste rock with a higher potential for harmful chemical reactions will be put into a mine pit and submerged under water. And how can they say that this won't get into our watershed and groundwater?	WR002, WR090
10457	Another grave concern mentioned in the EIS are the levels of sulfates in the Embarrass and Partridge Rivers... The Polymet EIS stated that sulfate could be released...How can they state that the sulfate levels will not increase?	WR064, WR177
10463	Also on the economic impact, we work at a tourism business very close to the proposed Polymet... Have you really checked out how much tourism exists by sulfide mines?	SO02
10465	It has been shown that this mining has by products of arsenic and thallium which have been linked to increased risk of cancer. We...do not want our water contaminated and Polymet has not proven that it will not be.	HU05
10466	There are many statements about computer models...The DNR itself has a report confirming what tribal scientists have said for years that the actual rate of ground water base flow is 200-300% higher than in the SDEIS.	PD29
10470	The history of sulfide mining is filled with companies going bankrupt or lacking financial resources to respond to pollution.	FIN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	kathleen (44390)	
10472	Regarding Economic Impact, Minnesota law states that sulfide mines be maintenance free at closure. This company has not indicated that it will guarantee that it will be in business this long or that it will pay for the maintenance/clean up for any pollution.	FIN01, FIN14
<b>Sender Name (Submission ID)</b>	Kathleen A Portugue (54898)	
18848	Protect and keep our drinking water, fish and wildlife habitat clean from all mining pollutants such as sulfuric acid from PolyMet.	AQ05
<b>Sender Name (Submission ID)</b>	Kathleen Brown (34910)	
13266	Glencor Xstrata is ready to buy out Polymet company and take over. They are known worldwide for their poor quality in care of the environment. They have poured acid directly into the rivers of Africa and Peru is filing lawsuits against them for their destructive policies.	FIN02
13268	When these toxins reach the air, they will leach into the ground water and into the local rivers, streams and water sources. Minnesota is the home of the Mississippi and of the largest fresh water lake in the world, Lake Superior. Both of these bodies would become contaminated forever.	WR151
<b>Sender Name (Submission ID)</b>	Kathleen Bryant (57217)	
17155	We are concerned that the water for our home will be polluted and the streams and ponds will be negatively impacted. How can homeowners in the area be assured of water quality and what recourse will we have if the water is polluted?	WR041, WR111
<b>Sender Name (Submission ID)</b>	Kathleen Groh (41878)	
16474	Copper mining is even MORE devastating and the years of pollution doesn't begin to justify short-term job gains. It just isn't worth it once the mines are depleted and the waste is left behind for generations.	SO01
<b>Sender Name (Submission ID)</b>	Kathleen Hamill (35862)	
11291	It is unconscionable to risk irreparable damage to the Boundary Waters region and Lake Superior. Any short-term economic benefit is eclipsed by the possibility of the devastating long-term consequences that may be suffered by our children and our children's children.	WILD02
<b>Sender Name (Submission ID)</b>	Kathleen Hills (47084)	
10700	the destruction to the landscape will be heartbreaking.	LU04
10704	the trade-off of twenty years of a few mining jobs for hundreds of years of pollution of sensitive habitats and a permanent ugly blot on the landscape is not worth the risk.	SO01
<b>Sender Name (Submission ID)</b>	Kathleen J Eggers (54785)	
19501	Although I have compassion for all the unemployed workers who possibly could find jobs with Polymet, I think we have to look at the long-term effects of such an endeavor on our state, our water ways, our drinking H2O, the future for our children. I am totally against sulfide mining in our state.	SO01
<b>Sender Name (Submission ID)</b>	Kathleen Jones (38959)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kathleen Jones (38959)		
17647	DO WE NEED COPPER? WHAT ABOUT FIBER OPTICS?	NEPA01
<b>Sender Name (Submission ID)</b> Kathleen M. Sullivan (42282)		
6927	The poses too much of a danger of contaminating the precious waters and watershed of the area that is our one last hope of unspoiled wilderness.	WR195
<b>Sender Name (Submission ID)</b> Kathleen McGee (58126)		
20031	Why...would anyone agree to risk polluting this amazing wilderness area in order to realize short-term profits that benefit a multi-national company- Glencoe? Would the state really prefer to have jobs in the short term but a polluted landscape in the long run?The negatives are just too great	SO01
<b>Sender Name (Submission ID)</b> Kathleen Miller (43035)		
12617	The Polymet SDEIS does not contain any analysis of the health effects for workers or adults and children who would be working and living in close proximity to the proposed mining site. It does not address the health effects on community members who would have chronic exposure to polluted air, to polluted drinking water or in the fish caught for personal consumption.	HU04
12619	...[mine] workers (especially those of child bearing age) will need protection from the harmful effects from toxic metal exposure on their unborn and future children. Women who are exposed to toxic metals before, during or after pregnancy pass high levels of metals through their bodies to their unborn children during critical stages of brain development and through breast milk to their infants. Children's brains are very susceptible to the effects of toxic metals.	HU04
12620	Communities who drink from this watershed need ongoing treatment and reliable monitoring of the water quality and their health to ensure that the people of Minnesota will not suffer long term health problems. Who will provide financial assurance for the long term health care needs of children and their parents? What if Range cities and lake front property owners can no longer use their wells for drinking water? Who will bear the cost of providing clean water to residents and property owners?	HU01, SO07
12623	The Polymet proposal does not address the runoff from the waste piles that will directly enter into the watershed. This is a major omission in their plan.	WR173
12625	An adequate SDEIS plan would also provide for the long term treatment and care of individuals and families exposed to toxic metals in the workplace and the community.	HU04
13937	I expect that these meetings will be very well attended and not likely to accurately reflect the interest by residents unless more opportunities are offered. Three meetings is ridiculously few for this important issue.	NEPA10
17145	I am writing comments today out of my concern for the very real negative health effects on workers and the community that would occur if this mining project is permitted. Noticeably absent from the review of this proposal is an Environmental Health Assessment. It is well documented in health care and industry literature that heavy metal exposure poses long term health risks to men, women and children.	HU03
17147	I have witnessed firsthand the irreversible harm to the nervous system caused by exposure to toxic metals. These conditions are disabling and irreversible. Exposure to toxic metals either as a worker, a community member or as a vulnerable member of our society (our children and our elderly) will cause chronic disabling illnesses and cognitive decline.	HU03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kathleen Miller (43035)		
17148	The current situation for many lakes in the area that function in the watershed is that there are already high levels of mercury in them. This is unacceptable. The current standards need to be enforced before any new mining activity should be considered.	MERC01
17156	The expertise of the Minnesota Department of Health and the University of Minnesota School of Public Health seems to have been overlooked as a resource in developing this proposed plan. Their input is vitally important to assess and measure the effects of the proposed mining project on the health of Minnesotans well before this plan is finalized.	HU01
17157	This PolyMET SDEIS proposal lacks a review of Health Assessment Risks needed to protect the health of Minnesotans.	HU01
17158	This PolyMET SDEIS proposal ... lacks an adequate plan to safely treat water from production and the waste that will be stored near the watershed.	WR128
<b>Sender Name (Submission ID)</b> Kathleen Peippo (54701)		
17785	Please do not allow the health and wellbeing of the future generations to be put in jeopardy for short term gain.	SO01
17786	Copper nickel mining puts our most precious natural resource, water, at risk.	WR195
<b>Sender Name (Submission ID)</b> Kathleen Smith (52560)		
15353	put Cat. 1 waste rock in a pit	ALT03
<b>Sender Name (Submission ID)</b> Kathleen Sullivan (42855)		
8585	I have been reading and attending meetings to find out my information about PolyMet's intention and methods. I just do not see how they can prevent polluting and destroying the watershed of the BWCAW lakes and Lake Superior.	GEN01
8585	I have been reading and attending meetings to find out my information about PolyMet's intention and methods. I just do not see how they can prevent polluting and destroying the watershed of the BWCAW lakes and Lake Superior.	WR111, WR130
8586	PolyMet and probably other companies in the future, seek to mine copper, nickel, and other metals from sulfide-bearing ores... [exposing] hundreds of millions of tons of sulfide-bearing rock to air and water, resulting in the release of great quantities of sulfuric acid, sulfates, and heavy metals, including mercury, into groundwater and surface waters. And all of this for only 1% of saleable metal!	SO01
8586	PolyMet and probably other companies in the future, seek to mine copper, nickel, and other metals from sulfide-bearing ores... [exposing] hundreds of millions of tons of sulfide-bearing rock to air and water, resulting in the release of great quantities of sulfuric acid, sulfates, and heavy metals, including mercury, into groundwater and surface waters. And all of this for only 1% of saleable metal!	SO01
8588	The mines would completely destroy at least 1, 7 41 acres of high quality ecosystems which provide habitat for many wildlife species including Canada lynx, wolves, and moose.; 698 acres of Jackpine/black spruce forest would be lost; 912 acres of high quality wetlands would be destroyed... I realize that PolyMet has to put up financial assurance to mitigate any damage done. But mitigation will not restore what has been lost. Once the wetlands and wildlife are gone, they're gone!	PD01, WI02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) Kathleen Sullivan (42855)</b>		
8588	The mines would completely destroy at least 1, 7 41 acres of high quality ecosystems which provide habitat for many wildlife species including Canada lynx, wolves, and moose.; 698 acres of Jackpine/black spruce forest would be lost; 912 acres of high quality wetlands would be destroyed... I realize that PolyMet has to put up financial assurance to mitigate any damage done. But mitigation will not restore what has been lost. Once the wetlands and wildlife are gone, they're gone!	VEG02, WET05, WI02
8589	The PolyMet sulfide mine plan would give us waste rock piles, mine pits, and tailings waste that would leak and seep pollutions into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	PD01
8589	The PolyMet sulfide mine plan would give us waste rock piles, mine pits, and tailings waste that would leak and seep pollutions into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	PD01
18135	698 acres of Jackpine/black spruce forest would be lost; 912 acres of high quality wetlands would be destroyed. Is it worth 1% of saleable metal?!	SO02
18135	698 acres of Jackpine/black spruce forest would be lost; 912 acres of high quality wetlands would be destroyed. Is it worth 1% of saleable metal?!	SO02
18136	I realize that PolyMet has to put up financial assurance to mitigate any damage done. But mitigation will not restore what has been lost. Once the wetlands and wildlife are gone, they're gone! Once the watershed is polluted, it's done!	FIN11
18136	I realize that PolyMet has to put up financial assurance to mitigate any damage done. But mitigation will not restore what has been lost. Once the wetlands and wildlife are gone, they're gone! Once the watershed is polluted, it's done!	FIN11
18137	I do not want to offer this up so a corporation, whose parent company is not even part of the United States, can make money on the 1% while we are left with 99% waste.	SO02
18137	I do not want to offer this up so a corporation, whose parent company is not even part of the United States, can make money on the 1% while we are left with 99% waste.	SO02
<b>Sender Name (Submission ID) Kathleen Zweber (45003)</b>		
7034	I believe that the risks to the Northern Minnesota ecosystem and to our State's economy are not worth taking.	WI13
17306	there is too much potential for mining profit to come at the expense of existing livelihoods and cost more in the long run... especially if Minnesota's taxpayers end up with a bill for cleaning up after the mine closes.	SO01
17307	Minnesota's unique environmental and natural resources are priceless and should be preserved for generations to come.	GEN01
<b>Sender Name (Submission ID) Kathryn Hanson (40941)</b>		
7685	[Text from SDEIS] "Duration of simulations 200 years at Mine site; 500 years at Plant site" - Expecting companies (especially those having significant foreign, non-US investors/backers) to be present and actively monitoring conditions over this amount of time is questionable.	PD01, WR035
7713	[Text from SDEIS] "It is uncertain how long the NorthMet Project Proposed Action would require water treatment, but it is expected to be long term..." - The long-term monitoring will also be highly dependent upon the integrity of regulatory agencies, which are continually under attack by well-funded commercial entities. Given the delays in making a decision regarding the sulfate standard in the State, despite science supporting existing regulatory guidelines brings into question the resilience and strength of the regulatory agencies.	PER04, WR035

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Kathryn Hanson (40941)	
7887	[Text from SDEIS] "533 million tons of waste rock and ore would be removed from the NorthMet Deposit. This includes a total of 225 million tons of ore and 308 million tons of waste rock." - There are no examples of open pit mining of this nature and scale that have not produced environmental degradation and pollution.	PD26
7891	[Text from SDEIS] "After mining planned at the East Pit ends by year 11, the waste rock in the temporary Category 2/3 and 4 stockpiles would be removed into the East Pit for subaqueous disposal" - Reactive waste material will be stored temporarily –concern about length of time before preferred method can be implemented. In the interim—how closely monitored will these temporary waste rock sites be by the State?	HAZ01
7892	permits and regulations are only as good as the regulatory environment and agencies that will be responsible. In economic downturns, budgets for such activities commonly are reduced. Upfront financial funds sufficient to cover unforeseen or poorly modeled negative consequences should be built into any permits.	FIN05, FIN08
7896	[Text from SDEIS] "...Tailings Basin as it is built up to create a barrier that would limit oxidation of sulfide minerals. This limiting of oxygen transfer would reduce pollutants generated from the Tailings Basin." - Terms such as ‘would limit’ and ‘would reduce’ do not indicate how much oxidation and transfer of pollutants will not be prevented.	PD07
7902	[Text from SDEIS] "Based on the results...would not exceed applicable environmental evaluation criteria except for two water constituents as a side effect of the project." - [should read] Would exceed applicable environmental evaluation criteria for two water constituents.	EDIT01
7905	[Text from SDEIS] "Therefore, the increase in the magnitude of the aluminum exceedance at these Plant Site evaluation locations is not attributable to process water from the NorthMet Project Proposed Action." - Increased aluminum is still a by-product of the planned NorthMet activities.	PD08
7913	[Text from SDEIS] "The engineering controls would not result in significant changes to sulfate concentrations in the Partridge River, but would significantly decrease sulfate concentrations in the Embarrass River" - It is my understanding from media coverage that input parameters for flow in the Partridge River may be incorrect in the model. Therefore, this statement may be based on incorrect modeling parameters.	WR165
7917	[Text from SDEIS] "Actual compensatory ratios determined during permitting may vary from these assumptions. The determination of final mitigation... would be determined by the agencies during wetland permitting." - There seems to be a lot of pressure on the EPA and other regulatory agencies to make regulations less onerous for materials deemed to have Strategic importance. Why should we believe that protection of wetlands will not be endangered by these acts and mining pressures?	COE02
7921	[Text from SDEIS] "At this time, the Co-lead Agencies have not identified a preferred alternative, and for the USACE, Appendix B of 33 CFR Part 325 supersedes the CEQ requirement to identify an agency-preferred" - It is not clear exactly what Appendix B of 33 CFR Part 325 says about selection of a preferred alternative.	ALT06
7924	Fig 3.2-28: Conceptual diagram-Tailings Basin Groundwater Containment - What is the basis for assuming no fracture flow in bedrock? Why is it assumed that all of the blasting will not have some impact on the underlying fracture flow system at the site? There will be potential release of pollutants into bedrock at the mine site and likely within the Tailings Pond areas.	WR011, WR012, WR016
7953	[Text from SDEIS] "Post-reclamation activities would include monitoring and maintenance of reclamation and water quality until the various facility features were deemed environmentally acceptable, in a self-sustaining and stable condition." - Statements that make promises of monitoring and maintenance into the future are vague promises. What is the true expectation of Polymet being a viable entity that will have the incentive to pay out for decades to tens of decades after plant closure?...how will recycling and substitutes for such metals impact the financial stability of the company in charge of post-closure.	FIN01, FIN11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Kathryn Hanson (40941)	
8041	[Text from SDEIS] "Early in the residue dewatering process, access to the residue surface may be somewhat difficult due to its fine-grained characteristics" - What are consequences of poor access at this stage if problems arise?	PD18
8050	[Text from SDEIS] "...at least 90 percent of seepage from the Tailings Basin and either return it to the tailings pond for reuse or treat it for discharge. In closure, all of the captured seepage would be delivered to the WWTP for treatment prior to discharge to surface water" - What about the other 10 percent of seepage? What about fracture flow in bedrock? Has this been factored into the seepage assessment?	WR010, WR018, WR090, WR108
8058	[Text from SDEIS] "...However, implementation of non-mechanical systems is considered a long-term goal for closure." - The public is being asked to take PolyMet's word that they will be an economically viable entity who will implement appropriate but not defined long-term passive systems.	FIN01
8067	[Text from SDEIS] "The magnitude of deviation from existing conditions, based on XP-SWMM modeling, in the mean values of the hydrologic parameters helps determine the degree of potential effect on stream ecology..." - Please confirm that the input parameters for streamflow in the Partridge River are correct. If reported values are higher than modeled, how can I believe the model outputs?	WR003
8069	Meteoric input parameter - As noted above, if questionable values are used as inputs, how can you trust probabilistic results. At a minimum the public should have an opportunity to review sensitivity results showing the impact of different input parameters if in fact the range in river flow estimates are not adequately parameterized in the model.	WR022, WR175
8070	Table 5.2.2.7 - Calibration of MODFLOW model - How would changes in estimated flow within the Partridge River affect the calibration of MODFLOW model. What would be the effect of using a range of values for bedrock rather than just one	WR003, WR052, WR086, WR087, WR091, WR179
8080	Table 5.2.2-11 - [Text from SDEIS] "Uncertain inputs are hydraulic conductivity and net meteoric recharge." - Are P(50) values appropriately conservative?	WR189
8089	[Text from SDEIS] "A description of the XP-SWMM model for the Mine Site is provided in the Mine Site Water Modeling Data Package (PolyMet 2013j)." As noted above—it is not sufficient for the SDEIS to conclude that values the DNR says are reasonable for surface flow would not make a difference in the final analysis. Best estimates should be used if the study seeks to claim the P(90) results are valid.	WR003
8093	Table 5.2.2-13 [Text from SDEIS] "Uncertain input with triangular distribution. Minimum, mode, and maximum values, respectively." - Please justify use of a triangular distribution. From the three parameter values, it would appear that a mean value may be significantly skewed from the mode. Is this technically defensible?	WR189
8106	500 Monte Carlo simulations - What is the general standard of practice regarding number of realizations needed for critical projects? %00 simulations doesn't seem to be adequate.	SO04
8112	[Text from SDEIS] "Transitions to the nonmechanical treatment systems would begin after the performance of the non-mechanical treatment methods have been proven." - Why are we supposed to assume that If nonmechanical treatment systems are not yet proven will be reliable?	PD06
8120	[Text from SDEIS] "Modeling of aquifer response at the Canisteo site using MODFLOW resulted in differences between simulated and measured water levels ranging from +28 ft to -4 ft (reference USGS Report 02-4198)... Therefore, it was concluded that it was not reasonable to attempt to quantify drawdown at the Mine Site using the MODFLOW model." - Given the heterogeneity of conditions at the site and at the Canisteo site, why is it reasonable to assume that the Canisteo site is a good analogy.	WR086, WR179

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Kathryn Hanson (40941)	
8132	[Text from SDEIS] "The initial arrival of West Pit solutes at the Partridge River would occur at about year 90, and peak concentrations in groundwater discharging to the river would occur at about year 160." - We are being asked to assume that PolyMet will still be an entity capable of monitoring the mine closure in 160 years. There should be sufficient financial vehicles in place such that the State and taxpayers will not be left holding the bag for these costs.	FIN01, FIN10
8142	[Text from SDEIS] "There are concerns that the presence of the NorthMet Project Proposed Action could reduce housing demand (and thus housing value) in the study area..."- The potential development of sulfide mining has already had the effect of diminishing market interest in lake front property that might be impacted by mining. The SDEIS downplays this effect. The potential tax revenues cited in the SDEIS would be offset by the reduction in lake-front property values regionally. As a property owner I have already seen the impact of proposed mining on prime lake front on lakes that may potentially be impacted by future mining.	SO03
8146	[Text from SDEIS, App A - WR4A] "Quantitative modeling of methylmercury is beyond the scope of the SDEIS, due to the inherent complexity of the fate and transport of methylmercury in the environment..." - At what stage of the permitting will quantification of this potential hazard be considered. Given the potential profits expected from this 'world class' ore body—cost should not be a factor in providing sufficient quantitative modeling.	PER11
8179	[Text from SDEIS, App B] "While low-confidence mineralization is known to extend along the strike beyond the proposed open pit outline, this material has not been evaluated in detail, there is no mine plan for it, and it is not included as part of the proposed NorthMet Project..." - This suggests that PolyMet is not making an effort to adequately evaluate the underground option.	ALT01, ALT06
8181	[Text from SDEIS, App C] "Neither the direct field observations (minimum of 3.4 cfs) nor the values calculated from the DNR rating curve, support the baseflow predicted by XP-SWMM at SW003 of 0.51 cfs..." - As a scientist/consultant working familiar with probabilistic modeling, it is not always clear what the end result of incorrect input parameters to a model may be. It would seem prudent to provide the public with a reanalysis of the modeling results prior to approval of this EIS.	WR003
8209	[Text from SDEIS, App C] "The hydrologic models for the Polymet mine site have been calibrated to targets that under-represent true baseflow. Models should be calibrated to a strong set of observational data. Construction of the site's basic hydrologic model to unrealistically low baseflows has ramifications for all the flow and contaminant modeling at the site." - If as news reports suggest, these alternative parameters have not been incorporated into the model, I am concerned that schedule may have been given precedence over good science and accuracy.	WR003
17361	The public was not given sufficient time to digest the very long document.	NEPA07
17362	Input parameters going into the various numerical models may not reflect the true range of uncertainty and hence the results of the modeling may not accurately represent the hazard. It would seem that additional analyses or sensitivity studies are warranted to show that the model results are sound.	WR189
17363	The economic downsides of sulfide mining-impact on recreational property value, tourism, short-term negative impacts on communities of transient workers-are not adequately accounted for.	SO01
17364	There is no reason to assume that the State of Minnesota will not be left paying for the pollution that will ultimately ensue. I am not willing to bank on yet unproven mitigation measures and non-mechanical post-closure promises.	FIN10
<b>Sender Name (Submission ID)</b>	Kathryn Iverson (4614)	

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kathryn Iverson (4614)		
13916	Facts tell us that NO MINE CAN BE BUILT OR OPERATED WITHOUT SIGNIFICANT ENVIRONMENTAL DAMAGE. What facts? For one example----look at this list of mine reclamation projects just in Montana alone (see thislink): <a href="http://www.deq.mt.gov/AbandonedMines/CurrentProjects.mcp">http://www.deq.mt.gov/AbandonedMines/CurrentProjects.mcp</a>	REF01
13917	It is clear that pulling the profits out cannot justify the environmental costs that inevitably occur from the harm done.	SO01
<b>Sender Name (Submission ID)</b> Kathryn Larson (43256)		
15791	I have reviewed the SDEIS and believe that while it is not perfect, it is a detailed, thoughtful consideration of environmental, social and economic impacts of the project. I believe the SDEIS shows a need for the project and shows that it can be done successfully, minimizing impact to the environment. I trust the process and I trust the State and Federal Agencies that will be granting permits for the project.	NEPA16
15792	I am impressed that PolyMet will use an existing Brownfields site and reuse existing infrastructure.	PD28
15793	Based on my review of the SDEIS, I am convinced that PolyMet will provide a needed service (producing metals that are in demand) in an environmentally responsible manner that will also generate a positive economic effect on Minnesota and the entire United States.	SO10
<b>Sender Name (Submission ID)</b> Kathryn M. Stingl (43097)		
14759	I have grave concerns about preserving the St Louis watershed from any contamination from the results of copper mining. The habitats are pristine. The water all leads to our "Big Lake" Superior. I also have concerns about the effects of closure of the mine on our water sources .	WR111, WR115
<b>Sender Name (Submission ID)</b> Kathryn Marschalk (40748)		
14172	Lets get moving . The people are desperate for decent paying jobs.	SO10
<b>Sender Name (Submission ID)</b> Kathryn Mensing (57266)		
17407	I would like to see specific research on the impact on women's health, specifically on breast cancer and toxin deposit in mammal glands.	HU02
17408	I also would like also a report that takes into consideration the rights, needs, and health effects on Native American Reservations and communities.	CR01
<b>Sender Name (Submission ID)</b> Kathryn Stoneman (41036)		
7527	The cost of potential damage to the wetlands, wildlife and habitat to wildlife is a real possibility.	WET24, WI01, WI02
7533	In addition, there are far reaching problems with impact on human life and quality of water and soil damage for miles and miles, should there be leakages or inability to handle waste products.	WR070, WR111
7538	I understand that the products gained are important to all of our lives but the risks are too great.	SO01
13938	I believe that the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN01

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Kathryn Yetter (54218)

17674 Please do not approve the copper mine so that future generations can enjoy the wilderness like I have. Any amount of degradation or habitat loss is too high a price to pay WILD02

17675 The proposed copper mine would produce 99% waste, far too high a price to pay for the pine trees. It could pollute one of the purest watersheds in the area, far too high a price to pay for the fish. The degradation of the environment would diminish future revenues from ecotourism. Far too high a price to pay for short term, dirty, unsustainable jobs. SO01

**Sender Name (Submission ID)**    Kathy Alvig (19999)

1627 We know there is significant damage to the earth, ground water, and also wildlife habitat that comes from the greed mining operations bring. There is no such thing as real recovery from this. WI02

1655 Do we want that area looking like a huge open sore? LU04

14844 All of the mining companies profits will go to South America on the backs of the people who live up near Hoyt Lakes. South American companies and share holders will profit on the backs of our childrens safety and good health. PD25

14845 This area that makes northern Mn a tourist destination will suffer from air and water pollution, congestion from transportation of the ore, and company controls and bullying. SO02

**Sender Name (Submission ID)**    Kathy Burkett (52195)

12931 Acid mine drainage can stick around for more than a millennium. Many sulfide mining companies have failed to provide financially for dealing with this long lasting pollution and then go belly up. As a taxpayer I am not willing to be responsible for the liability of clean up. FIN01

12932 In early 2010 the EPA gave the rating of Environmentally Unsatisfactory and Inadequate for this project plan PolyMet set forth and I am leery that the standards even come close to protecting our waters and environment for the long term. NEPA08

12933 It is disturbing that there were no contingency plans included with their proposal for accidents from failures of collection and treatment systems, tailings basin failure, accidental releases, etc. Where is the plan regarding treatment of the water should a plant break down and what is the plan for where the toxic polluted water will go when this inevitably happens? WR130

12935 200 years, 500 years and 1000's of years of treating the toxic pollution created by this mine is a long term commitment with long term consequences ...consequences that we would be forcing upon our future generations. FIN08, FIN10

16225 With something so obviously needed to safeguard environmental safety, yet not included in their proposal, I see no indication that PolyMet is committed to clean mining. I find this of grave concern especially when the waste water treatment plant located off site would need to run for the next 200 years and a long 500 years for the water treatment plant on site. PD03

**Sender Name (Submission ID)**    Kathy Glover (39405)

13184 Hoping that long term values (healthy waters, wilderness, respect for the land) will weigh greater than short term goals (money, money, money). SO01

**Sender Name (Submission ID)**    Kathy Holander (18243)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kathy Holander (18243)		
13622	I would like to know how much fresh water, both ground and underground this project is scheduled to use. I am not aware of anywhere in the SDEIS where the amount is specified. With climate change coming, there will be areas of drought and areas of heavier-than-normal rainfall that quickly run off. In a drought year, will there be enough water for people and animals to use for drinking water? Will the streams still flow? Will the stream-fed lakes dry up? Will the mining company be able to take all they want even in a drought year?	WR181, WR182, WR188
13623	By law, an appraisal [for the land exc hange] must be done on the land being lost in the Superior National Forest, and on the new land that will be exchanged to make sure that the new land is worth at least 75 percent of the value of the land being given up...What kind of people are we that we do this to the native people of our land. The forest service should disclose to us, the public, all land appraisal information now and extend the comment period so we the taxpayers can comment on this land-exchange issue.	LAN03
13624	On the current land, the state owns the mineral rights. The new lands have split mineral rights. There are no covenants to prevent mining. The land exchange proposed by PolyMet should be rejected since it's not in the public interest. PolyMet must find land where the public owns the mineral rights. No split mineral leases to sell off.	LAN04
13625	And the swap is not equal. We will have a net loss of over 6,000 acres of lands with high biodiversity. We will have a net loss of over 2,000 acres of mature forests and be given less mature forests in exchange. We will lose over 1,400 acres of flood plains. The exchange should be denied as we, the taxpayers, end up with a lot less.	LAN03
<b>Sender Name (Submission ID)</b> Kathy Hollander (18228)		
2194	I would like to know how much fresh water, both ground and underground, this project is scheduled to use.	WR181, WR182
2195	Will the mining company be able to take all the water they want, even in a drought year.	WR188
2196	Also, I'm concerned about the land exchange. By law, an appraisal must be done on the land being given up in the Superior National Forest, and on the new land that will be exchanged to make sure that the new land is worth at least 75 percent of the value of the lands being given up. We the people of Minnesota own that land now, although it belonged to the native people before the European settlers. The native people retained their rights to hunting, fishing and gathering on this land and now even that will be taken from them.	CR01
2197	The forest service should disclose to the public all land appraisal information now and extend the comment period so we taxpayers can comment on this land exchange issue. On the current land, the state owns the surface minerals rights. The new lands have split mineral rights. There are no covenants to prevent mining. The PolyMet must find land where the public owns the mineral rights. No mineral leases to sell off.	LAN03, LAN04
2198	It's [land exchange] not in the public interest.	LAN01
<b>Sender Name (Submission ID)</b> Kathy Iverson (18274)		
13901	And so the thought that there are countless lakes and rivers that could be contaminated just, you know, to me is No. 1. That is something so precious that we cannot put a dollar figure on that. It is about heritage.	SO01
<b>Sender Name (Submission ID)</b> Kathy Kahn (47661)		
7883	All the plans for cleaning up the pollution caused by mining can never make nature as it was before.	NEPA15

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kathy Magnuson (42969)		
15126	i understand the need for good jobs. I also know that jobs come and go but when clean water and virgin land goes, it is gone. Forever. I also understand the vibrant tourism industry in northern Minnesota and would not want to jeopardize that as well.	SO01
<b>Sender Name (Submission ID)</b> Kathy Ogle (46728)		
9261	We are concerned that the proposed PolyMet NorthMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water.	HU03
9262	We also believe that the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (“PolyMet SDEIS”) fails to adequately assess important risks to human health from the pollutants that would be released from this project. The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the PolyMet SDEIS is particularly troubling.	HU01
9263	We would respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal. We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Impact Assessment (HIA) be prepared under the guidance of the Minnesota Department of Health.	HU01
9265	We are aware that many of the bodies of water downstream of the proposed PolyMet mine and plant are legally impaired due to mercury in fish tissue. The lower reaches of the St. Louis River, where the estuary for Lake Superior fish is located, contains a particularly high level of mercury. We also know that other mine facilities release both mercury and the sulfates that increase bioaccumulation of methylmercury.	MERC02
9266	Reviewing the PolyMet SDEIS, we believe that the information on mercury releases and the potential for mercury bioaccumulation is insufficient. The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	MERC20
9268	The PolyMet SDEIS also provides an insufficient analysis of the human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and carcinogenic effects of air emissions of diesel, asbestos-like fibers, nickel and other particulates, and of arsenic releases to water.	HU01
9269	The PolyMet SDEIS fails to analyze health risks to workers who would work on-site at the PolyMet mine or plant and fails to assess impacts of tailings groundwater seepage on nearby residential sites.	HU04
9270	The PolyMet SDEIS does not discuss impacts of exposures to vulnerable populations, such as infants, children, the elderly and persons who rely for subsistence on fish, wild rice or game species where pollutants may bioaccumulate.	HU01
9275	For these reasons, we would first request that the PolyMet SDEIS be revised to provide more complete information on mercury and sulfate emissions, deposition, and seepage from various sources, and the potential conversion to and bioaccumulation of methylmercury resulting from releases to the environment and hydrological changes from the proposed PolyMet project.	MERC16, MERC20

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kathy Ogle (46728)		
9278	We would further request that the PolyMet SDEIS be determined inadequate pending supplementation to include a Health Impact Assessment, under the direction of the Minnesota Health Department. This Health Impact Assessment should include at least the following: 1. Description of the known human health impacts of all pollutants in PolyMet’s air emissions and water discharges based on reliable toxicity and epidemiology data. 2. Assessment of potential health impacts on residential wells from tailings seepage. 3. Health impact assessment for on-site workers at both the PolyMet mine and plant. 4. Assessment of cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River. 5. Assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis and an appropriate “lifetime” for exposure. 6. Assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice	HU01
9279	HIAs are a tool used in the environmental review process. Environmental Impact Statements, such as the PolyMet SDEIS, are required by the National Environmental Policy Act to contain analysis of impacts on human health. However, human health is subordinated to environmental impacts, is addressed in a piecemeal fashion, and there is no examination of the social determinants of health in the SDEIS. An HIA would integrate human health into the environmental review for the PolyMet NorthMet proposal, allow consideration of mitigation measures, and involve the community in planning for the project.	HU01
<b>Sender Name (Submission ID)</b> Kathy Sidles (9678)		
281	I’m against allowing the mining because the acid concentration of the waste water is too high and persists too long.	WR001, WR115, WR195
1364	Wildlife is sensitive to acid level, and the potential for destroying the water-dependant wildlife is too great.	WI04
1365	There is no way the company can guarantee they will pay for what the public - including other private companies - can loose.	FIN01
<b>Sender Name (Submission ID)</b> Kathy Thonvold (41494)		
9331	I am opposed to such an operation in that area and am gravely concerned in regard to the effect on not only the pristine Boundary Waters Canoe Area, a national treasure to be sure, but all water in the area and the safeguarding of that area for the generations who follow us.	WILD02
9332	From what I have read, PolyMet does not seem to be able to give 100% guarantees that money will be there for the cleanup after the mining has ended...	FIN01
<b>Sender Name (Submission ID)</b> Katie Feterl (41039)		
7553	20 years of jobs is not worth lifetimes of a destroyed environment that presently largely contributes to the tourism industry of Northern Minnesota.	SO01
7555	The construction of this mine will only expedite the implementation of future mines in the area, accelerating environmental degradation.	CU04
7556	Tourism will most likely tank if the area is unhealthy and unsafe.	SO02
7559	The mine is not the only option for providing jobs. It does not mean the end of Ely if it is not constructed.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Katie Feterl (41039)		
7565	However, it [Northmet Mine] could put Ely in a much worse position in a few decades should there be large health consequences and/or reduced tourism due to acidic water supply that destroys the life system around it.	SO02, WI04
<b>Sender Name (Submission ID)</b> Katie Fournier (58097)		
19981	The limited number of jobs provided by this project for a limited number of years is not a valid trade for the prospect of another economic bust in NE Minn when the mining is finished. We have seen the boom/bust cycle too often from extractive industries in this part of the state. When you add the prospect of remediating, pollution for centuries (when our Republic itself is only ca 230 years old), it seems clear that we in Minn and elsewhere in the world should focus on reuse and recycling of needed materials, rather than putting our waters and landscape at risk.	SO01
<b>Sender Name (Submission ID)</b> Katie Haws (42882)		
6815	the water would need to be treated for as many as 200 years in the future for the Mine site, and 500 years for the Plant site. There are not enough economic safeguards to prevent the company from bankruptcy and the possibility that they could not guarantee this continue expensive active water treatment regime for the number of years necessary,	FIN01
6816	I am very concerned with protecting the clean water currently flowing in the Partride River and Yelp Creek (located only feet from the storage pond), and the Embarrass River, as well as down stream concerns for the entire St. Louis watershed	WR081
6818	Although the XP swim and gold sim [models] were used, these are not accurate predators of potential pollutant inputs into these riverine systems. The potential for overflow during large storm events such as recently happened in Duluth for example, were not part of these model calculations.	WR193
6820	Although [wetland] mitigation is described and revegetation mentioned, these types of plant communities cannot be restored. Restoration as mentioned is not an adequate mitigation strategy for the large scale destruction of these unique plant communities; the conifer bog, shrub swamp, conifer swamp, and shallow and deep marsh, and open bogs communities.	WET05
6825	The impacts on [terrestrial and aquatic] threatened and endangered species to be affected by the project is vastly under represented.	WI01
6827	Mercury can be released into the environment from wetland drainage...potential impacts in terms of human life and reduced quality of life are immeasurable, should these toxins bioaccumulate in species such as game fish within the Rabbitt, Embarrass and St. Louis river systems.	HU03
16988	the estimates of costs of [water] treatment are not particularly accurate.	FIN05
16990	I do not believe that seepage was adequately modeled.	WR019
16991	sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream.	AQ05
16993	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons.	WI01
16994	Species of Greatest Conservation Need including the Ruffed Grouse, Spruce Grouse, and Black-backed Woodpecker also will be impacted by their habitat being destroyed by the creation of the mine.	WI01, WI02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Katie Haws (42882)		
16995	Fish and mollusk species found in the above mentioned waterways will also be impacted potentially by added pollutant loads from the mining operation, potentially due to catastrophic spills, seepage or other impacts not measured in the model.	AQ05
16996	I feel that the entire ET species review should be redone because of the new species listed in August known to be in the project area that were not part of the EIS as submitted.	WI01
16997	The species associated with aquatic habitats such as molluscs, birds and fish have the potential to be seriously impacted by the increased pollutant loads that will inevitably find their way into the aquatic systems	AQ05
<b>Sender Name (Submission ID)</b> Katie Heitzig (54621)		
18641	Wetlands that would be harmed or destroyed by the Poly Met mine are water resources of national and international importance.	WET19
18642	The environmental review process is supposed to let us weigh alternatives. The PolyMet SDEIS doesn't suggest any alternatives to reduce impacts on wetlands at the mine site. The SDEIS rejects underground mining without studying how avoiding an open-pit could reduce environmental harm. It doesn't look at alternatives that would restore wetlands on site or clean up mine water and keep it in the Partridge River watershed.	ALT01, ALT13
<b>Sender Name (Submission ID)</b> Katie Krikorian (11585)		
2245	It appears there will be NO treatment at all for water that seeps from mine pits.	WR173
2245	It appears there will be NO treatment at all for water that seeps from mine pits.	WR173
11955	I don't understand how this project can be approved before the "reverse osmosis" treatment system is installed. I read it won't be installed until 40 years from now. That's 20 years after the mine is closed.	WR143
11955	I don't understand how this project can be approved before the "reverse osmosis" treatment system is installed. I read it won't be installed until 40 years from now. That's 20 years after the mine is closed – since it will only be operational for 20 years – according to Polymet.	WR143
11981	I don't believe they have proved they will be able to afford to clean up the pollution if they are allowed to mine.	FIN01
11981	I don't believe they have proved they will be able to afford to clean up the pollution if they are allowed to mine.	FIN01
18309	I don't believe [PolyMet has] met the burden of proof that they will operate [the mine] without harming the environment permanently.	NEPA15
18309	I don't believe [PolyMet has] met the burden of proof that they will operate [the mine] without harming the environment permanently.	NEPA15
18311	I don't believe they have proved they will be able to afford to clean up the pollution if they are allowed to mine. We only have their word--no proof!	FIN01
18311	I don't believe they have proved they will be able to afford to clean up the pollution if they are allowed to mine. We only have their word--no proof!	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Katie Krikorian (11585)		
18312	We don't NEED copper for millions of new cell phones. People just WANT these products based on marketing. The residents of MN are being taken advantage of!!!	NEPA15
18312	We don't NEED copper for millions of new cell phones. People just WANT these products based on marketing. The residents of MN are being taken advantage of!!!	NEPA15
18313	The air pollution will be great regardless of how much they pollute the water and destroy the habitat for people and animals.	AIR13
18313	The air pollution will be great regardless of how much they pollute the water and destroy the habitat for people and animals.	AIR13
<b>Sender Name (Submission ID)</b> Katie Weddle Langer (39529)		
13445	We can't afford to damage the natural resources that we need in order to live healthy lives.	HU03
<b>Sender Name (Submission ID)</b> Katie Williams (42732)		
14393	I am opposed to the PolyMet Mine project. Damage to the watershed from water pollution will be extreme.	WR195
14394	Lake Superior and the {ILLEGIBLE} is some of the very best wilderness environmental left in our state and is valued by people all over the country and the planet. Please don't let it be ruined!	WILD02
<b>Sender Name (Submission ID)</b> Katja M Coppetto (54546)		
19190	I know that the natural resources may be available in a finite amount but I'm concerned for the infinite resource of human social, creative capital. The level of pollution over multiple generations will put human life in great danger.	HU03
<b>Sender Name (Submission ID)</b> Katrine Antolak (43805)		
11825	[The mine] will create a lot of jobs and help our economy a great deal. We need to be less dependent on others for natural resources.	SO10
<b>Sender Name (Submission ID)</b> Katy Kennedy (9737)		
286	Please do not allow the Polymet Mine to happen. Doing so will pollute nearby waters for years to come.	WR195
287	It will also destroy the natural beauty of the area with large pits, and piles of excavated waste material.	LU04
<b>Sender Name (Submission ID)</b> Kay Beams (22892)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kay Beams (22892)		
13970	Their proposal contains inadequate analysis of risks to public health from the proposal. The DNR should conduct a health impact assessment (HIA) to fully analyze the public health implications of PolyMet's proposed mine. It is time for these analysis to look at the implications to humans... The health of all Minnesotans is at stake here--so a health impact assessment for the PolyMet project needs to be done and the results included in the EIS. The time for leaving out essential studies and information is over. We are tired of incomplete impact studies being done on human and environmental health effects. It is time to start worrying about the health of the citizens of the state of MN. The HIA needs to include an analysis of the social determinants of health.	HU01
<b>Sender Name (Submission ID)</b> Kay Erickson (41880)		
2128	The SDEIS is inadequate and doesn't provide any assurance that it won't be harmful to northern Minnesota. Any project that would require treating water for 200-500 years should be rejected out of hand because there is absolutely no guarantee that this will be done.	FIN01
2129	This kind of mining has resulted in contamination of surface and or ground water with heavy metals and sulfates all over the world. PolyMet tailings will be added to an existing tailings basin that is already leaking polluted water.	WR023, WR070
2130	It will destroy bogs, tamarack swamps and degrade 7,300 acres of wetlands. It will leak polluted water into the St. Louis River and eventually into Lake Superior.	WET24, WR111, WR115
16475	It isn't worth 500 years of cleanup for 20 years of mining.	SO01
16476	I would be somewhat more confident about the project if the companies that pollute our air, water and land would actually pay for the clean up they promise when these projects are approved...The track record is abysmal.	FIN01
16477	The cumulative effect of all these projects needs to be considered, especially because it is inevitable that, like pipeline projects, once they get their "foot in the door," they will want to expand and destroy more our forests, waterways and lakes.	CU04
<b>Sender Name (Submission ID)</b> Kay Kieval (58005)		
19855	MN regularly ships copper to China in the form of old alternators & motors which China recycles for use in tech mfg. Instead of mining we could do this here.	NEPA06
<b>Sender Name (Submission ID)</b> Kay Kurt-Jankofsky (42755)		
14447	Especially of worry is the question of the sensitive nature of the water sources and our dependence on the continued quality of it for us and those who will come after us. The Clean Water Act is precisely in place for protecting our waters and should be upheld and honored. Every time so far, as I understand, mining of sulfide [ILLEGIBLE] has been tried in a water sensitive environment, it has resulted in surface and/or ground water contamination by sulfates and heavy metals.	WR023, WR070, WR195
14449	Mining is projected to last 20 years, but who is going to be responsible for monitoring and control of the water quality for this time, 200 years, and 500 years out? I believe concrete, reliable and proven procedures need to be in place for any pollution due to PolyMet et al to even think of mining activity in Minnesota.	FIN01
<b>Sender Name (Submission ID)</b> Kay Nelson (605)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kay Nelson (605)		
418	Keeping the water supply clean is too big of a risk for the State of MN to take.	WR128
<b>Sender Name (Submission ID)</b> Kayellen Taylor (47142)		
12862	This project should not go forward unless a third-party insurer, such as Lloyd’s of London, can be found. The simple fact is, if a third-party private entity will not take on PolyMet, the state shouldn’t.	FIN08
15760	The source cited is “Foth 2013.” I’ve looked at the Foth memocited in the SDEIS. The Minnesota DNR has simply copied information from PolyMet’s hired consultant without confirming or fact-checking their work. If the Minnesota DNR and its co-lead agencies are unable to fact-check the work they presented on financial assurance, how are we to expect that they are capable of the adequately protecting the citizens of Minnesota?	FIN08, FIN09
15767	This project shouldn’t go forward without robust public debate, and the opportunity for legislative hearings, if what we can expect is a paragraph from the DNR in the Permit to Mine phase. You must ensure that the public, including financial experts and those elected to represent the citizens of Minnesota, have a chance to weigh in on financial assurance	NEPA03
<b>Sender Name (Submission ID)</b> Keelin Kane (58114)		
19983	The long term pollution is unacceptable. The “assurances” are more than inadequate – they’re ludicrous. To imagine that twenty years of jobs is enough to offset permanent destruction of an irreplaceable landscape! The international conglomerate will reap the money and the benefits and leave a mess behind. Boom, then bust. Northern Minnesota has a thriving tourist industry. People come from all over the world to enjoy it. Don’t sell it out. It’s a world treasure.	SO01, SO02
<b>Sender Name (Submission ID)</b> Keith A Haglin (57145)		
16840	I don’t think we should permit this mine as clean-up will cost more than the value of the ore...Taxpayers should not get stuck at the end of the mining	FIN10
<b>Sender Name (Submission ID)</b> Keith Goetzman (43201)		
11548	I urge the DNR to require that the PolyMet EIS include Glencore in the financial assurance section of the document as a potentially responsible party, in case the financial assurance required of PolyMet proves to be inadequate, and to require that any permit to mine for PolyMet include Glencore.	FIN02
11549	We simply do not have enough information yet, and this comment period is closing before key pieces of information are even in hand.	NEPA07
11551	To begin with, the SDEIS is overly long and inaccessible as a document to encourage public comment. ... it at once presents an abundance of data and a dearth of basic, understandable information.	NEPA07
11552	The SDEIS does not address exactly how long water treatment will be needed at the mine site, instead presenting a theoretical 500-year model that has done little except to sow public confusion about the actual duration of treatment.	PD03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Keith Goetzman (43201)		
11553	The SDEIS uses a flawed model for the amount of contaminated water flowing from the mine site, meaning the project’s planned treatment plants may have to process larger volumes of water than expected. The document describes long-term reverse osmosis water treatment that is yet unproven at the scale, use, and time frame proposed.	WR143, WR148
11554	The SDEIS does not describe adequate safeguards against worst-case scenarios that could compromise the integrity the waste and water retention and treatment systems.	WR130, WR131, WR202
11556	The SDEIS also describes an unacceptable amount of wetlands loss. Mining at the site would destroy approximately 1,500 acres of wetlands, one of the largest wetlands destructions ever permitted by the Army Corps of Engineers.	COE03, WET23
16180	Financial assurances of Polymet’s long-term commitment to cleanup and mitigation are key to the proposed project’s environmental impact, and yet the public has been asked to let the DNR and Polymet work out financial assurance details after the comment period is closed. The current financial “assurances” outlined in the SDEIS are wholly insubstantial and not assuring to this citizen.	FIN13
16181	the SDEIS does not account for or even mention Glencore, which will own the first five years of minerals from the proposed NorthMet mine.	PD23
<b>Sender Name (Submission ID)</b> Keith Haas (58103)		
19922	I believe the study was done complete and with the best [information] available.	NEPA16
<b>Sender Name (Submission ID)</b> Keith Jentoft (40992)		
6851	I believe that the study is flawed and unfairly promotes the interests of the mining industry.	NEPA15
6854	Specifically, the company proposes to excavate three enormous pits up to 696 feet deep.	PD30
6856	Waste rock would be stored next to the pits in 20-story high piles covering 526 acres.	PD15
6859	The mine will destroy 900 acres of high quality wetlands, e.g., coniferous bogs and tamarack swamps, and impact an additional 7,000 acres.	WET24
6860	The mine has a projected lifespan of 20 years; polluted water must be treated for 500 years.	WR035
6861	Leaking polluted water will flow into tributaries of the St. Louis River and finally into Lake Superior.	WR070, WR111
6863	I strongly object to the impact the Sulfate releases will have on the wild rice in the drainage area.	VEG04, WR156
<b>Sender Name (Submission ID)</b> Keith Laken (18231)		
13580	What I would like to see, if any mining permits are approved, that the mining company provide a surety bond for 10 times the estimated reclamation -- cost of the reclamation project, so 10 times... So the idea is that the companies that are granted these permits cannot just create a shell corporation, issue their dividends to their investors and then walk away from the public.	FIN01, FIN05, FIN08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Keith Laken (18231)		
13581	The second thing is that those people that are responsible for approving the -- the project and for running the project, that violation of any federal or state law is a capital offense, not just a minor offense. That individuals and corporations are held accountable from a capital standpoint; in other words, these are severe crimes against humanity.	PER06
<b>Sender Name (Submission ID)</b> Keith Morris (54817)		
18348	Mining in general is an unsustainable industry. There exists a finite, nonrenewable mineral deposit, and when that is gone, so are the jobs. Even though these jobs may last 20 years, the infrastructure of the area has to expand to accommodate this temporary work force. When the mine closes, the government will have to be the safety net for all these mining families	SO02
18413	... it will be the people who do not profit from this in any way that will be paying for this for the next 500 years, not only financially, but esthetically and environmentally as well...Minnesotans will be saddled with a 500 year liability and no guarantee that the destruction and pollution won't be forced on generations to come. How can you guarantee anything for that time period?	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Keith Nelson (42733)		
14395	The metals that PolyMet is proposing to mine are essential to our way of life. Minnesota, with its strict state and federal regulations, long history of mining, and a shuttered facility waiting to be recycled, is the best place to do this mining.	PER34
14396	I also want people of northeastern Minnesota to earn a living in a part of our state that needs well-paying jobs – careers that will support families and communities. Mining currently makes up 30% of the economy and miners are some of the highest paid workers in the state.	SO10
14398	I particularly like the following statement from the SDEIS: "The NorthMet Project Proposed Action would not directly, indirectly, or cumulatively affect the water quality of these areas (BWCAW and Voyageurs National Park)."	AIR08
14399	The air emissions from the operation will be minimal. The process PolyMet will use does not generate hazardous waste and, in fact, can be used to create a useful product out of waste material.	AIR14
<b>Sender Name (Submission ID)</b> Kel (43696)		
11923	I don't believe there are enough safety measures in place to adequately protect our wetlands and groundwater sources.	WR128, WR130
15097	Too many companies continue to dump their waste into nearby lakes and wetlands because of loopholes in current regulations. I fear this will end up just the same and cause catastrophic damage to our northern wilderness.	PER35
<b>Sender Name (Submission ID)</b> Kellen Giblette (44378)		
10430	I feel that the mine will have extremely detrimental effects on the Boundary Waters Wilderness Area... I do not feel that any amount of jobs for any amount of time is worth the possible (and in my opinion inevitable) destruction of such a special piece of land.	WILD02
10432	I personally do not feel that it is reasonable to say that you will be financially stable to oversee the mine for 500 years, or even that you as an entity will exist in 500 years.	FIN01
<b>Sender Name (Submission ID)</b> Kellen Roberts (1774)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kellen Roberts (1774)		
537	I am deeply concerned about the environmental impacts of this mining project. I see in the report that Minnesota will be committing itself to treating the water at the site for at least 500 years.	PD03
539	We cannot know how much this will cost and who will manage such a long term project.	FIN01, FIN05
543	I strongly appose this project unless there is a way to clean it up within a reasonable amount of time after the closure of the mine.	PD01
<b>Sender Name (Submission ID)</b> Kelley (47708)		
8096	I am afraid the pollution will inevitably enter the near by Embarrass River and Partridge River which flows into the St. Louis River that then flows into Lake Superior.	WR111
8098	I am not at all convinced that the short term goal of mining is at all worth the inevitable pollution it will cause. Nor am I convinced that PolyMet will be able to reverse the damage to water and land to it's original healthy state.	SO01
<b>Sender Name (Submission ID)</b> Kelli Danger (1775)		
596	[The NorthMet Project would impact] the pristine lakes and streams that bring tourism to this beautiful area!	SO02
<b>Sender Name (Submission ID)</b> Kelly Andrle (17344)		
12822	Please reject the PolyMet NorthMet SDEIS as inadequate because open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality	WR195
12823	Please reject the PolyMet NorthMet SDEIS as inadequate because open-pit sulfide mine plan would have unacceptable ... impacts [on] human & animal life.	HU03
16974	SDEIS as inadequate because open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality, and impacts human & animal life.	SO01
<b>Sender Name (Submission ID)</b> Kelly Hickey (3633)		
423	The idea that a mining company could destroy the health of our most valuable resource (water, not copper/nickel/other metals) indefinitely (though they only admit to a 500 year issue) for the sake of temporary jobs and revenue is sickening.	WR115
425	The jobs and money the mine once brought to Butte are but a distant memory, but the "pit of death"... remains, threatening to spill into the water table as its acid bath continues to rise. Polymet will almost certainly leave devastation in its wake, as every hard-rock mine in the United States has before it.	WR023, WR195
885	but the "pit of death" (in 1995, a flock of over 300 migrating snow geese landed in the Berkeley Pit and died from internal sores resulting from exposure to the lethal waters) remains, threatening to spill into the water table as its acid bath continues to rise. Polymet will almost certainly leave devastation in its wake, as every hard-rock mine in the United States has before it.	WR107
<b>Sender Name (Submission ID)</b> Kelly Rogers (39608)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kelly Rogers (39608)		
6672	The potential short term gain is absolutely not worth the long term pain of what this mining will do to our environment and the health of our communities, both physical and financial.	SO01
<b>Sender Name (Submission ID)</b> Kelly Strebig (9314)		
923	I agree with the EIS that this is a low-sulfur deposit. I have read the executive summary of the EIS and I find it thorough and that it addresses all the environmental Issues.	NEPA16
925	The dangers posed by environmentalists can and do exist in countries with no laws concerning the environment, and problems may have existed 60 years ago when the United States had few regulations.	PER44
19931	I strongly support the NorthMet Project because mining and the environment can co exist in Minnesota.	GEN02
<b>Sender Name (Submission ID)</b> Kelly Weber (6787)		
1125	I am very disappointed in the State of Minnesota and the continuous roadblocks and delays that they allow to prevent a company like PolyMet from bringing to this State many jobs and tax dollars for both now and future generations.	SO10
1309	The NIMBY thought process that continues to force these metals to be mined in other parts of the world where there are no environmental regulations at all, does not make any sense in today's world.	NEPA05
<b>Sender Name (Submission ID)</b> Kelsey L. Reisdorph (43960)		
7033	Based on PolyMet's own report on the consequences of open pit sulfide mining, it will take centuries to fix the damage for only around 20 years of mining.	PD01
7035	My proposal is that if PolyMet wants to do this project, they should establish a trust fund of an amount established and decided on by a third party and governed by the state, the purpose for which would be to pay for the damage that they are inflicting.	FIN01, FIN07, FIN08
<b>Sender Name (Submission ID)</b> ken chastain (47040)		
16514	200 years of pollution to keep track of? It's absurd to think you would want to get involved in that kind of responsibility.	PD24
16515	200 years of pollution to keep track of? It's absurd to think you would want to get involved in that kind of responsibility.	PD24
<b>Sender Name (Submission ID)</b> Ken Chervenak (46961)		
10809	How could any of the responsible elected officials in the state of Minnesota ever consider putting the Crown Jewel [BWCAW] of your state at jeopardy... There are not many areas of wilderness beauty left in this country let alone in this state where people can go to escape the routines of their urban lives to refresh themselves physically and spiritually in this wonderful area known as the Boundary Waters Canoe Area Wilderness.	WILD02
<b>Sender Name (Submission ID)</b> Ken Engelhart (40936)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ken Engelhart (40936)		
7592	Toxic pollution has happened at every sulfide mine site in the world to date, including the Flambeau mine site near Ladysmith, Wisconsin. Other sulfide mine sites have been declared Superfund sites. With this type of record, it is extremely doubtful that the outcome would be different for [the NorthMet Mining Project in] Minnesota, even though we are all “above average”	PD26
7597	By comparison, this mine would leave a legacy of millions of gallons of polluted water for hundreds of years in one of the more water-rich areas of the world. Sulfide mining would require measures to “treat” this polluted water for up to 500 years or more. It is unlikely that PolyMet and other current mining companies will exist in 100 years, and unimaginable that they will exist in 500 years. However, it is likely that Minnesota taxpayers will exist, and will ultimately will be the ones left to pay for the cleanup, if possible, of the toxic mess that is left behind after the mining companies are long gone. Other states with sulfide mines have been saddled with billions of dollars in clean-up costs.	FIN01, FIN05, FIN10, WR037, WR115
13927	In summary, sulfide mining is a highly toxic process that has caused pollution at every sulfide mine site in the world. It is a type of mining that has never been done in Minnesota and that would leave a toxic legacy of millions of gallons of polluted water in one of the most unique and precious water regions of the world. The short term “benefits” of mining do not outweigh the disastrous long-term consequences to our pristine northeastern Minnesota waters and land. I urge you to resist the allure of short-term “gain” for what ultimately will be long-term pain that Minnesotans will deeply regret.	SO01
<b>Sender Name (Submission ID)</b> Ken Halfmann (35232)		
14090	While I haven't yet been to the Boundary Waters Wilderness, I have visited a number of other beautiful sites on the Lake Superior shoreline from the Apostle Islands to Tahquomenon Falls, and can't imagine subjecting any of these places to the degradation that this mining project would bring.	WILD02
<b>Sender Name (Submission ID)</b> Ken Hanson (37145)		
15918	I understand the industrial need for copper and nickel and the significance of job creation but I find it difficult to accept that either of those issues should take precedence over the preservation of our natural environment-particularly water quality.	SO01
15919	I don't find in all the literature I've read (for and against the project) any suggestion Polymet or any other mining operation can even begin to assure the beautiful lakes region of northern Minnesota won't be significantly, negatively altered by their sulfide mining operations.	WR023
<b>Sender Name (Submission ID)</b> Ken Illegible (57279)		
16072	Acid Mine Drainage (AMD) and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred.	WR023
16074	I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including: risks to water quality.	WR111
16076	I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including:...loss of wetlands	WET24
16077	I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including:...harm to wildlife such as lynx and moose	WI01
16079	I have grave concerns about this project's potential impacts on Minnesota's natural resources and public health, including:...cumulative impacts from mining.	CU11

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ken Illegible (57279)		
16080	I am concerned that a decision around jobs will outweigh the potential impact on the environment. Concerns around the impact on the environment should be a priority.	SO01
<b>Sender Name (Submission ID)</b> Ken Kaseforth (48088)		
12093	All of these long-term risks for about 20 years of mining...When you also factor in the inevitable and long-term off-setting losses to neighboring recreational business, this proposal becomes absurd on its face. It is not one that will benefit Minnesota or US citizens in the long-term.	SO01
13234	This project would present unacceptable risks to Minnesotans well into the future, in terms of health, environmental contamination and financial liability.	HU03
13235	All of these long-term risks for about 20 years of mining by a Canadian company funded primarily by a Swiss commodities trading firm, and whose chief customer will be China? When you also factor in the inevitable and long-term off-setting losses to neighboring recreational business, this proposal becomes absurd on its face. It is not one that will benefit Minnesota or US citizens in the long-term.	SO01
16194	us tax-payers will be left holding an empty but foul bag if this mine is permitted.	FIN10
<b>Sender Name (Submission ID)</b> Ken Klein (21257)		
933	Please consider health risks associated with the proposed Polymet mining operation. I am requesting that you confer with our Mn. Dept of Health and the MPCA in your deliberations, and commission independent research to evaluate human habitat (eg. health) consequences from mining residues. This is just one very troubling report re: heavy mining in South America. <a href="http://www.worstpolluted.org/projects_reports/display/89">http://www.worstpolluted.org/projects_reports/display/89</a>	HU01
1276	I am very concerned that sulfide mining poses unacceptable risks to "human habitat" in the form of long term health risks from cumulative residues & byproducts (Including methylmercury) which can infiltrate the water supply, food chain, air emissions... I implore you to commission independent studies to evaluate these risks, to incorporate already known research findings in your deliberations and permitting process, and to very carefully weigh the costs in human terms (as well as financial burden) if health damage ensues from these operations. Reliance upon industry's own studies and assurances has shown time and again to be myopic.	PER06
1487	Posting of bonds (no matter the amount) might guarantee some degree of comfort to those contemplating monitoring costs, clean up costs, etc., but will not begin to cover the actual medical, legal, economic, and emotional toll if the health of current and future generations (in Minnesota, & in the surrounding area, eg. Lake Superior region) is imperiled or damaged.	FIN05, FIN08, FIN11
1692	I believe from reading the SDEIS that assessment of plausible neurotoxic risks associated with the Polymet project(s) has been inadequate.	HU01
1693	Methyl-mercury contaminants can migrate into water, soil, and air, and their cumulative effects need to be evaluated in the context of other likely discharges (e.g. other approved mines, industry discharges, ambient pollution, baseline levels of neurotoxins in Lake Superior watershed, etc.)	MERC10, MERC20
1694	No bond or financial guarantee will begin to cover health related sequelae if neurotoxic damage ensues. No mitigation, monitoring, abatement, restoration, reclamation processes and funding can address permanent neurological damage that residues from sulfide mining are known to occasion.	HU03
1695	The economic benefits to the region and state are paltry when they are viewed in juxtaposition to public health risks lasting centuries into the future.	SO01

*Alphabetical by sender's first name*

**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)**    Ken Klein (21257)

8314 Please involve the CDC & other reputable experts to provide you an independent analysis of these risks before approving any mining permits. This is the only responsible course, given the long term cumulative risks to human habitat associated with heavy metal mining.    HU01

10824 No increased risk of neurotoxic exposure to future generations of children in Minnesota & in the surrounding sulfide mining watershed can be deemed acceptable. ... Please involve the CDC & other health experts to provide you an independent analysis of these risks before approving any mining permits. This is the only responsible course, given long term cumulative risks to human habitat associated with heavy metal mining.    HU01

13985 Regulators in Minnesota need to base their decisions upon worst case scenarios, not upon political pressures, or upon incomplete (at best) projections from vested interests which minimize long term risks to our state and future generations.    PER35

13986 Human habitat (e.g. health risks) must be foremost in your analysis, relying upon independent comprehensive studies from multiple impartial and knowledgeable experts....    HU01

14838 Industry reassurances mean little when "accidents" happen. Do more than due diligence to keep this type of tragedy from happening in our great state.    PD22

18860 I believe that several independent analyses (by respected experts) must underpin the SDEIS, and that the models thus far presented have relied too much upon industry data and statements.    NEPA15

18862 Methyl-mercury contaminants, as you know, can migrate into water, soil, air. Their cumulative effects can only be evaluated in the context of other likely discharges (e.g. other approved mines, industry discharges, ambient pollution, baseline levels of neurotoxins in the Lake Superior watershed, etc.)    MERC10

18863 No bond or financial guarantee will begin to cover health related costs if neurotoxic damage ensues. No mitigation, monitoring, abatement, restoration, reclamation processes and funding can address permanent neurological damage caused by residues associated with sulfide mining.    FIN05, FIN10

18871 The economic benefits to the region and state are paltry when juxtaposed with public health risks lasting long into the future. (Needless to add, tourism will decline significantly if any "accidents" do occur, given the current pristine nature and allure of this unique wilderness area.)    SO01

18875 Thank you for your attention and consideration. I would appreciate an acknowledgement of this comment, and a copy of the final summary report.    RFI01

**Sender Name (Submission ID)**    Ken Swanson (37456)

16326 From all the information I've seen to date poly-met does not have a firm plan for keeping run off within limits and they for sure cannot explain what or how to do it in the future.    WR129, WR130

16327 WE want GOOD JOBS BUT NOT TO RUIN OUR STATE AND OR OUR WATER SUPPLY FOR GENERATIONS!    SO01

**Sender Name (Submission ID)**    Ken Wainionpaa (36814)

8705 Overly strict laws on mining and manufacturing have forced many American producers to out-source to another country. The MPCA is one of the causes of companies out-sourcing their manufacturing to other countries. The USA cannot survive if all of our products are out-sourced.    NEPA05

**Sender Name (Submission ID)**    Kendell Corbett (39087)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kendell Corbett (39087)		
10256	I have no concerns that the project would be done safely and adhere to the strict regulations and standards set forth by the State of Minnesota.	PER34
10257	I commend the agencies on the due diligence they have shown in the years of research and testing - it is time now to move forward based on the sound science and facts of the project.	NEPA16
<b>Sender Name (Submission ID)</b> Kendra Roedl (57196)		
17084	Mining there or near there poses too great a risk to one of the most pristine fresh bodies of water in the world, and the people that live there.	WR111
<b>Sender Name (Submission ID)</b> Kenneth Eckstein (19823)		
1384	Land Exchange: The DEIS does not adequately address all the biological and land use issues with the land exchange. Additional information on the natural heritage and timber resources of the exchange lands need to be gathered. The public is best served if the public gains much more public land than it gives up. The exchange ratio should be at least 2 to 1 and of high quality parcels.	LAN03, LAN05
1390	No made-made structure can be designed to last forever at this time, so at some point in the future the tailings storage facility will be compromised. At some time in the future the people of Minnesota will have to pay for and clean up the failing tailings storage facility.	FIN05, FIN10
1394	Large amounts of money put aside today for future remediation will fall short of what is really needed. Millions of dollars today will equate to pennies in the distant future.	FIN05
1395	Think about the trade off of these few jobs and tax money compared to the value of tourism in this area.	SO02
<b>Sender Name (Submission ID)</b> Kenneth Engelhart (54786)		
19357	Toxic pollution has happened at every sulfide mine site in the world to date... With this type of record, it is extremely doubtful that the outcome would be different for Minnesota, even though we are all "above average".	PD26
19358	It is unlikely that PolyMet and other current mining companies will exist in 100 years, and unimaginable that they will exist in 500 years. However, it is likely that Minnesota taxpayers will exist, and will ultimately be the ones left to pay for the cleanup, if possible, of the toxic mess that is left behind after the mining companies are long gone.	FIN01, FIN10
19359	The highly toxic process of sulfide mining has great potential to destroy [northern Minnesota's] waters, as well as the tourism trade, native cultural heritage and wild rice that exist because of these precious waters.	SO02, VEG04
19360	The short term "benefits" of mining do not outweigh the disastrous long-term consequences to our pristine northeastern Minnesota waters and land.	SO01
<b>Sender Name (Submission ID)</b> kenneth jensen (7469)		
774	I believe it (PolyMet) will bring many good paying jobs to an area that could use them.	SO10
<b>Sender Name (Submission ID)</b> Kenneth Nelson (49551)		
12491	Compromising the quality of the water in the Saint Louis River and Lake Superior water shed is not responsible management of our environment.	LU06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kenneth Nelson (49551)		
12494	Although the example of the costly Silver Bay on land tailings pond was better than direct disposal into Lake Superior, it is far from an environmental friendly solution. Sulfide mining presents its own added water treatment problems with even greater costs and challenges which we must solve before we open the flood gates to not only PolyMet but all the other mining operations waiting on the sidelines.	WR023
16303	Compromising the quality of the water in the Saint Louis River and Lake Superior water shed is not responsible management of our environment.	WR111, WR195
16305	A single limited scope sulfide mining operation similar to some of the taconite pilot plants might be something to consider for the first ten years of operation before allowing for full scale operation. Then if careful monitoring of all problems shows that indeed this mining is feasible and environmentally responsible, full scale operation can be considered.	ALT06
16306	Any suggestion that the water treatment from the current taconite plants is acceptable and is an example of responsible mining is simply a sad commentary to our intelligence.	WR023
16310	A single limited scope sulfide mining operation similar to some of the taconite pilot plants might be something to consider for the first ten years of operation before allowing for full scale operation. Then if careful monitoring of all problems shows that indeed this mining is feasible and environmentally responsible, full scale operation can be considered.	ALT06
<b>Sender Name (Submission ID)</b> Kenneth Rosemark (11254)		
750	I implore you to take a stand, against allowing the mining companies, anywhere near, any waterway, tributary, stream connected to or running into a Boundary Water Area Lake Or Waterway.	WR111
753	Something's are worth more than money! The peaceful, pristine, soulful wilderness area, called the BWCA is one of them!!	SO02
1577	The residue left behind by copper mining seeps into the water, kills plant life, fish & wildlife.	WI04
3232	They [Mining Companies] are for profit organizations and once they are given the green light, they will destroy this Pristine Wilderness Area [BWCAW].	WILD02
<b>Sender Name (Submission ID)</b> Kenny Bollis (38926)		
16854	The reason I am so concerned about this, in spite of poly met saying that they would be responsible, is that the financial assurances need to remain in place for an extreme amount of time. Financial assurances that need to be in place for 200 to 500 years have not ever been proven. Have there ever been any financial assurance vehicles that have been tested or proven effective for 500 years?	FIN01
16855	The land swap between the forest service and poly met in my mind needs to have its own separate review. The proper amount of time needs to be allotted to this important piece of poly mets project. It cannot be lumped together and hurried through.	LAN10
16856	There is some discrepancy as to the amount of water being released from the project. I would believe the tolerances were put into the model for a good reason therefore it would make sense that the correct numbers be put in and the model be rerun. This is an important part of the EIS. In order to protect our citizens it is only responsible to redo the calculations and do a revision of the model.	WR086, WR093, WR178, WR183, WR189
16857	I do not believe that the current tourism economy and vacation home industry could flourish side by side with the nonferrous mining economy which brings pollution and greater industrialization to this unique part of our country.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kenny Bollis (38926)		
16858	The following are items I would like the DNR to fix in PolyMets mine plan: Plan to account for the destruction of moose habitat as well as other natural habitat for the Canadian lynx	WI02
16859	The following are items I would like the DNR to fix in PolyMets mine plan: Plan should accurately assess health risks to the public	HU02
16860	The following are items I would like the DNR to fix in PolyMets mine plan: Address the risks of mercury pollution for our children as well as future generations	MERC03
16861	The following are items I would like the DNR to fix in PolyMets mine plan: Plan should improve wetland protection and replacements	WET04
16862	The following are items I would like the DNR to fix in PolyMets mine plan: Provide Minnesotans with accurate information about how long polluted waters will require treatment	WR038
16863	The following are items I would like the DNR to fix in PolyMets mine plan: Glencore must be recognized as a responsible party for permitting because of its ties with PolyMet	FIN01
16864	The following are items I would like the DNR to fix in PolyMets mine plan: Fix the inaccurate water data used in the model and redo the water model	WR003, WR086, WR093, WR189
16865	In conclusion it is my opinion that the few hundred jobs and monetary gain for a corporation is not worth the perpetual damage and pollution nonferrous mining will cause to Minnesota's environment.	SO01
<b>Sender Name (Submission ID)</b> Kent L Kaiser (10701)		
8841	I am satisfied with the NorthMet SDEIS—especially with the responses provided in Chapter 8 to concerns over impact on the Embarrass and Partridge Rivers—and I believe our state should progress toward the new era of mining and prosperity for northeastern Minnesota.	PD28
<b>Sender Name (Submission ID)</b> Kent Merkey (3447)		
12336	The proposed PolyMet mine would likely bring temporary short-time financial gain to the area, but the area also benefits greatly from tourist dollars and supports many outfitting businesses; these smaller local businesses, which otherwise might last decades, could well be jeopardized, and when the mine pulls out when it's work is done, would leave both its employees and the local environment (including economic and natural) in an overall weakened condition.	SO02
12337	Thinking critically, this project does not make long-term sense either economically or environmentally.	SO01
13413	The proposed PolyMet mine would likely bring temporary short-time financial gain to the area, but the area also benefits greatly from tourist dollars and supports many outfitting businesses; these smaller local businesses, which otherwise might last decades, could well be jeopardized.....	SO02
<b>Sender Name (Submission ID)</b> Kent Newman (39914)		
14292	All sulfide mines so far, have leaked some acid, into there waterways	WR023

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kent Scheer (7706)		
818	This is not the time for intelligent people to permit another massive extraction process risking lasting environmental degradation.	PER35
<b>Sender Name (Submission ID)</b> Kent Simon (44067)		
7723	Despite the application of the best modeling tools science has to offer, there is no consensus on the rate of climate change over the next fifty years, let alone five hundred. Simply stated, water flows cannot be predicted with reliable accuracy.	WR196
7724	well-considered contingency plans and replacement plans are critical. The lack of such plans in your report is glaring in its omission....	PD22
12308	It's hard to believe that allowing copper sulfide mining is even being considered, given the following:the public hearing period 90 days;but the clean-up period may be up to 500 years!!!	PD01
12309	only 300+ mining jobs will be created; but how many more jobs rely on tourism, based on the natural beauty of the place, will be lost!!	SO02
13455	only 300+ mining jobs will be created;but how many more jobs rely on tourism, based on the natural beauty of the place, will be lost!!!	SO02
15157	there will be a serious detrimental environmental impact when failure occurs. And we're not just talking about one mine here; this decision will be precedent-setting and if the Polymet venture is approved, the gate will be open. How many more mines will we be saddled with maintaining for 500 years?	CU04
15158	The time will come when the right proposal is made and we will recognize it as such. It will be a proposal that offers considerable economic benefits for all Minnesotans and preserves the environment, Minnesota's most precious natural resource. This is not that this proposal and this is not the time.	PD25
<b>Sender Name (Submission ID)</b> Kenzie (54346)		
17610	This will affect cultural resources. A segment of the Mesabe Widjiu known as a sacred place to the Ojibwe people, occurs within the project area so it would be affected. A segment of the Beaver Bay to Lake Vermilion Trail, It also exists within the project area so it would be affected. The Project is also located on land that was awarded to the U.S by the Bands under the 1854 Treaty. The Bands reserved the right to hunt, fish, and gather on these lands. Resources like fish, plants, and animals might be affected by the project.	CR01, CR05
17680	I think that this land exchange is ok. I think that the land that was public that would become private is unfair. I don't know what the public uses the land for , but for example: if I walked my dogs through this public land every day and then all of a sudden they built and mining project on it I wouldn't be happy. This project will not affect me. I think that this is for a good cause and if it needs to happen, it should. I just think that the land exchange should be more fair to the public.	LAN03
17681	The advantages to this would be that there would be less unemployment, and better lives for many Minnesotans. But there would also be some disadvantages; there is always a risk of population considering how close the mining project would be tho many rivers, lakes, and wildlife.	SO01
17682	I think that the PolyMet Mining has a very good plan in place. I think that it is well thought out, I also think that they have planned every aspect of the project out very thoroughly. I think that this copper-sulfate mining process will definitely benefit Minnesota in some ways.	PD28
<b>Sender Name (Submission ID)</b> Keri Lynn Igo (54501)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Keri Lynn Igo (54501)		
19043	I am concerned that I don't see mention in the SDEIS of linings for the tailings basin or mine pit, other than bentonite in a small area of the tailings basin. (I can 't imagine that bentonite would make a longlasting seal- seems like it would break down, erode away, or slide down fairly soon.) It seems likely that any lining material would eventually break down over time, allowing water with heavy concentrations of metals to seep out.	PD07, PD15
19044	[In the SDEIS, I] didn't find any protections in place to keep water from seeping through the ground from the mine pits and tailings basin. This seeping water would pollute both groundwater and/or surface water.	PD04
19045	The SDEIS should include provisions to prevent contaminated water from seeping out of the tailings basin, mine pit, and anywhere else on the premises that contaminated water stands. These provisions should include liners and plans for monitoring the condition of the liners and repairing/replacing them as they break down.	PD04
19047	If Poly Met is creating water that will be contaminated for the next 500 years, they need to have a plan in place to contain that water when natural and man-made disasters happen.	FIN01, FIN11
19048	The SDEIS should include a plan to collect runoff in case of extreme rainfall that causes flash flooding, prolonged rainfall that temporarily (or permanently) raises the water table, and spring rain that falls before the ground thaws (causing runoff to abandon its normal courses).	WR202
19049	The SDEIS should include measures to protect our groundwater, nearby rivers, and nearby wetlands if there is an earthquake...before the NorthMet project should be allowed to produce contaminated water, a plan needs to be in place to deal with the water for its entire lifespan.	PD22
19051	[Reverse osmosis] systems rely on electricity, and to my knowledge, can't function without electricity. Poly Met should have a plan in place to protect water in the case of an extended power outagewhether due to war, vandalism, terrorism, or massive infrastructure failure.	FIN05
19052	Any of the mine's premises, facilities, or equipment could also certainly be damaged by forest fire, tornado, lightning strike, collapse due to excessive weight of snow, ice storms, or other factors. The SDEIS should include analysis of the potential ways these forces of nature or manmade disasters could affect mine operations, safety, and potential for pollution, and adequate contingency plans to mitigate these risks.	PD22
19055	It is not acceptable for the SDEIS to be written with best-case-scenario language. The planned methods and SDEIS document should be revised to rely on redundant systems to protect our water quality and other environmental factors.	PD03
19056	Our economy here and the quality of life I enjoy are built on accessibility to clean water, vibrant plant and animal populations, and beautiful natural scenery.	SO02
<b>Sender Name (Submission ID)</b> Kerry Carter (54117)		
15979	A few dollars of profit to corporation isn't worth destroying our water resources.	SO02
<b>Sender Name (Submission ID)</b> kerry martineau (40040)		
15247	The science as I believe proves there is no safe or environmental safe and sound way to for this mine like mining in Minnesota has been boom and bust no lasting good impact very few jobs no long term good for our water both ground and lakes and streams our lands or the creatures we share them with I vote yes for the life the future of all creatures and No vote for this mine..	SO01
<b>Sender Name (Submission ID)</b> Kerry Waschke Collie (42759)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kerry Waschke Collie (42759)		
14512	My family has successfully owned and operated an Auto Dealership in Virginia, MN for over 30 years. We certainly understand the economics of our local region, and the positive effects Polymet will have. My business won't necessarily serve PolyMet directly, but my business will be enhanced by the additional economic activity – construction workers, vendors, employees – that will come about as a result of the project. My community will be stronger because of that economic activity; frankly, the whole state will benefit.	SO01
<b>Sender Name (Submission ID)</b> Kevin (43027)		
12692	The SDEIS does not include a study of the costs to existing industries in the State of Minnesota, most importantly, tourism in the NE portion of the state....Tourism supports 20,000+ jobs in NE Minnesota. If this mine pollutes and impacts the region in a negative way, how will those jobs and revenue be affected? When people decide they don't want to vacation in and around both water and air pollution how many jobs will be lost and how much money will the State of MN lose in revenue?	SO02
12694	The SDEIS does not take into account health risks to people living in the area of the mine. NE Minnesota already has a higher cancer rate than any other part of the state. The SDEIS needs to identify these risks and potential mitigations. Health risks arise from both air and water pollution at the site and processing plant.	HU01
12695	What precautions are in place in the event of a 100 year rain or flood on the mine site and processing plant?	WR202
12696	How accurate is the flow model for the Partridge River? Reports are that it is underestimating actual water flow by 3 times. The entire model needs to be re-run over the course of many years in both below average, normal, and above average rain/snow fall years. How can Polymet put forth accurate pollution data when they don't even know the water flow in the primary discharge river?	WR003, WR077
12697	What proof is there in the SDEIS that earthen walls dug down to bedrock to contain the tailings piles water runoff will hold?	PD07
12700	In the event that Polymet declares bankruptcy who is financially responsible for the 200-500 years of clean up? What inflation factor was used in the calculation of yearly estimated costs? How can Polymet propose clean- up costs of three and a half to six million dollars per year will stay the same for each of the next 200-500 years? Inflation alone will multiply those numbers and costs. SDEIS needs to include information on financial assurances. This should not be handled at the permitting stage.	FIN01, FIN05, FIN08, FIN13
12701	Polymet should exchange the same quality of wetland for the amount that they are destroying. If this cannot be done, then the SDEIS needs to be revised and a new plan needs to be made. An acre for acre exchange is not right, as the 100 year wetland is a unique wetland and cannot be replaced once dug out of the Earth.	WET14
12702	The SDEIS does not accurately study the flow of water leaving the mine site. There is some flow ultimately leading into Birch Lake and into the BWCA that needs to be examined and included in the SDEIS.	WR081
17022	What is the projected ground seepage and how will Polymet propose to handle that form of water pollution exiting the tailings piles into underground aquifers? SDEIS does not answer this.	WR059, WR060
17024	Where has reverse osmosis been used on this grand of a scale (3 million gallons per day) to treat water tainted in sulfuric acid? What assurances does the public have that this will work? Where in the SDEIS does it state the back-up plan in case of catastrophic damage to this system? Reverse osmosis...[has] never proved successful on this type of scale. I need hard proof that this will work, not just assurances from Polymet executives.	WR143, WR144

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kevin (43027)		
17025	What maintenance costs are foreseen with the rubber liner under the 20 stories of tailings that will be piled up on it at the mine site? The SDEIS does not take into account failure of this rubber liner. Where has this particular liner been used before on this scale, and where has it proved successful? What assurances that the liner will hold up over 200-500 years of Earth movements?	GT12
17032	I would like my kids to experience the BWCA and Lake Superior where they can swim in the water and eat the fish. NE Minnesota is the crown jewel of the state. Let's not ruin it. There is a place for sulfide mining, but just not in the Land of 10,000 Lakes.	LU06
<b>Sender Name (Submission ID)</b> Kevin G Olsen (9307)		
919	To have this area ruined by sulfuric waste polluting our waterways and land is unthinkable	WR001, WR115
920	Do we really want to have 500 years of cleanup and pollution destroying the last pristine place in Minnesota.	PD03
<b>Sender Name (Submission ID)</b> Kevin Heaslip (46316)		
8908	Regarding the comment period for the Polymet EIS, I believe that the upcoming deadline for comment will unsatisfactorily limit input. Such an important issue as sulfide mining in our area needs to be fully examined; setting an arbitrary comment deadline only serves to rush an agenda.	NEPA07
8968	Regarding the comment period for the Polymet EIS, I believe that the upcoming deadline for comment will unsatisfactorily limit input. Such an important issue as sulfide mining in our area needs to be fully examined; setting an arbitrary comment deadline only serves to rush an agenda.	NEPA07
9136	Regarding the comment period for the Polymet EIS, I believe that the upcoming deadline for comment will unsatisfactorily limit input. Such an important issue as sulfide mining in our area needs to be fully examined; setting an arbitrary comment deadline only serves to rush an agenda.	NEPA07
<b>Sender Name (Submission ID)</b> Kevin Johnson (16328)		
1481	This is a huge opportunity for Minnesota and studies have been completed by Polymet as to not to harm the water.	NEPA16
<b>Sender Name (Submission ID)</b> Kevin Jones (57345)		
18412	I think more important than the jobs and the revenue, and the taxes, and the money side of things, I think it is a great opportunity to really show how things can be done right.	SO10
18415	I think it is important for Minnesota, as well as the United States, to show environmental stewardship by bringing leading edge technologies to the mining process.	PER34
<b>Sender Name (Submission ID)</b> Kevin Jorgenson (38471)		
9662	By knowingly allowing an environmental impact statement to use information on water flow that is incorrect and inaccurate, and if the DNR allows that information to be used moving forward, FRAUD is being committed... Their impact statement is knowingly false and inaccurate regarding water flow information that was used to determine potentials for pollution. If they are incorrect in a basic measurement like water flow, what more complex items in their report are also inaccurate?	WR003
13601	We should not mortgage the next 5 generations futures for the potential of a few hundred people to have jobs for 20 years.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kevin Jorgenson (38471)		
13602	What is PolyMet going to do? They are going to pull the minerals out, make a ton of money and then leave. The state really isn't going to benefit, and the long-term costs of trying to prevent our precious waters from being polluted cannot be quantified by experts.	FIN01
13604	Our waters will become polluted, and then not only will the state be burdened with the costs of trying to clean up the water, but that area will lose its beauty and revenue generator - tourism.	SO01
<b>Sender Name (Submission ID)</b> Kevin Lee (47244)		
16924	Don't let the North Shore environment be destroyed by mining that is almost guaranteed to pollute the ground water	WR107
<b>Sender Name (Submission ID)</b> Kevin Oak (15444)		
661	It is appalling that PolyMet would wantonly cause egregious harm to critical environmental systems and habitat for the sake of short-term profits.	VEG03
662	The toxins and poisons they are intending to spew into the environment with callous disregard for life will still be killing long after they are gone	AIR11, WR035, WR041
<b>Sender Name (Submission ID)</b> Kevin OHalloran (6038)		
1530	There is no need to risk any environmental degradation of this part of the state	WR115
<b>Sender Name (Submission ID)</b> Kevin ORourke (43072)		
10003	Regarding...the proposed sulfide mine and tailing to be stored at the south east corner of 100 mile swamp..the map that is currently being used by SDEIS, and when superimposed on an accurate map of the area ... The SDEIS map shows a part of the marsh area that is much smaller than the actual area, and also shows a flowage under the bridge to the swamp and a flowage out of the swamp. There is no real flowage out of the swamp, as the swamp is continuous into the BWCA.That is the cover up.	WR024, WR080, WR081, WR111, WR120, WR167, WR175
15415	...once water is acidified by even a small amount, it will no longer sustain trout fisheries. With sulfide runoff going into hundred mile swamp, the chemicals will eventually reach the boundary waters, and the trout habitat destroyed all the way.	AQ08
<b>Sender Name (Submission ID)</b> Kevin Piron (690)		
422	I very much support our efforts to prevent pollution of all types and to maintain the purity of our water and other natural resources. However, when we say that we don't want a project like Polymet to happen in our back yard, we are, in effect, saying that we want it to happen elsewhere where it won't be our concern. To me, elsewhere means many places in the world where people and their environment have little or no protections from mining and industrial practices that would never be permitted in our country.	ALT16
<b>Sender Name (Submission ID)</b> Kevin Swanberg (40822)		
10136	The temporary jobs that the mine will create will destroy many permanent jobs the tourism industry and farming industry give our state.	SO02
<b>Sender Name (Submission ID)</b> Kevin Viken (43110)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kevin Viken (43110)		
10169	I do not see anywhere within the SDEIS ... a survey of the microbiota currently present in the ecosystem and how those organisms will respond to the potential levels of leachate from the tailings ponds.	AQ01
11640	The water in the tailings ponds will be highly toxic without regard to the eventual pH of the water.	WR057
11643	Because the tailings are created from pulverized rock which has had its surface area increased infinitely and exposed to air/water, even slow rates of leaching will result in toxic levels of heavy metals/sulfides that will harm native flora, fauna, microbiota that are all critical for the proper functioning of the local ecosystem.	VEG06
11645	the magnitude of time the toxic water within the tailings ponds has to be determined. At some point it will escape because nothing can be contained in perpetuity.	WR057, WR128
11647	Financial assurance needs to be addressed and well laid out with adequate resources and adequate protections... To have adequate funds 2 things are necessary: a. Ensure adequate funds given different scenarios for the long term economic possibilities. B. Adequate protections of the money that is set aside is critical and requires that how it is handled must enshrined in the constitution.	FIN05, FIN08
11657	Waste from the NorthMet project that is leached in the water will be forever toxic because it doesn't have the advantage of radioactive decay that nuclear waste has.	WR070
11658	I would like it to be considered that the mine be required to be underground below the water table and the waste be used to backfill the mined tunnels. In my view we currently have the technology for this to be done safely for the very long-term.	ALT06
<b>Sender Name (Submission ID)</b> Khang Le (54225)		
16736	I don't know is it illegal if you changing the map and information that provide for the construction. The map that the polymet company providing is wrong, absolutely wrong, they had been rewriting the map of the swap where the mine, are going to be place on.	PD38
17359	The mining company dumping their rock into a swpp that having sulfite init and when sulfite meet with water they'll produce sulfuride acid that can make a huge damage the impact of the environmental that can change the ecosystem of living species inthere.	AQ08, AQ12
<b>Sender Name (Submission ID)</b> Kiersten Wilson (54359)		
18216	the amount of endangered wildlife is horrendous. If there is any chance, which there is, of destroying or affecting this wildlife, the project should come to an immediate halt. We cannot afford to risk losing any wildlife.	WI01
18217	what about the endangered mammals, reptiles and birds? What will they do during this project? Even if it doesn't directly affect the animals, the sound, water pollution and deposition of dust will surely affect their lives.	N04
18218	I also realize that you plan to plant more wildlife and trees at the site after the mining is over, but what about those twenty years when the animals may be deprived of their homes? What happens when they drink polluted water? As I have said before, we cannot risk the lives of these innocent animals over one mining site in Minnesota.	VEG05, WI02, WI04
18219	As you can see, it would be a great loss not to have this wonderful mining site in Minnesota, but the lives of the wildlife should come first. The lives of these creatures are at great risk, and it would be silly not to disengage this mining project.	WI01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kim Christensen (57953)		
19864	I am concerned about what by-products will be left after this mining is done. I do not trust the plans to clean up the mess.	PD01
<b>Sender Name (Submission ID)</b> Kim Keelor (11577)		
2230	Wetlands: It appears that 57 percent of the wetlands in the project area will be directly affected and permanently lost. A better goal to shoot for should be well under 50 percent permanently lost at the site. Why not make it 30 percent permanently lost	WET07
2230	Wetlands: It appears that 57 percent of the wetlands in the project area will be directly affected and permanently lost. A better goal to shoot for should be well under 50 percent permanently lost at the site. Why not make it 30 percent permanently lost	WET07
2231	Land Exchange: I think citizens of Mn deserve photographs/film footage of these areas that will be exchanged....Minnesotans deserve to see what these exchanges look like.	LU01
2231	Land Exchange: I think citizens of Mn deserve photographs/film footage of these areas that will be exchanged....Minnesotans deserve to see what these exchanges look like.	LU01
2232	In regards to Threatened and Endangered Species: The statement on Fact Sheet 13 that PolyMet would restore certain disturbed lands and could potentially create new habitat though the process could take decades	PD03, PD01, WR035, WR070
2232	In regards to Threatened and Endangered Species: The statement on Fact Sheet 13 that PolyMet would restore certain disturbed lands and could potentially create new habitat though the process could take decades	VEG03, VEG05
2233	In addition, you are guaranteeing 10-20 years of the tailing ponds containing the contaminants but not beyond that. A better guarantee would be 200 years for me. If the technology is not presently at a stage where you can secure contaminated waters for longer than 20 years, I think that the scientists, engineers, biologists, need more time to study the current mining practices and develop new technology to maintain the contaminants	CU04, CU01
2233	In addition, you are guaranteeing 10-20 years of the tailing ponds containing the contaminants but not beyond that. A better guarantee would be 200 years for me. If the technology is not presently at a stage where you can secure contaminated waters for longer than 20 years, I think that the scientists, engineers, biologists, need more time to study the current mining practices and develop new technology to maintain the contaminants	WR057, WR128
2234	Cultural Resources: I think it is wrong to affect the segment Mesabe Widjiu and that the fish, plants and animals are affected.	CR01, CR05
2234	Cultural Resources: I think it is wrong to affect the segment Mesabe Widjiu and that the fish, plants and animals are affected.	VEG04, WR157
7762	Water Quality: I am concerned about the increase of aluminum and lead in the waters north of the tailings basin noted "As a Side Effect" If the technology is not presently at a stage where you can secure contaminated waters for longer than 20 years, I think ...need more time to study the current mining practices and develop new technology to maintain the contaminants.	MERC20, WR005, WR035, WR126, WR189, WR195
7762	Water Quality: I am concerned about the increase of aluminum and lead in the waters north of the tailings basin noted "As a Side Effect" If the technology is not presently at a stage where you can secure contaminated waters for longer than 20 years, I think ...need more time to study the current mining practices and develop new technology to maintain the contaminants.	WR059, WR064, WR082
<b>Sender Name (Submission ID)</b> Kim Schroeder (18285)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kim Schroeder (18285)		
14019	What if they go out of business? What is our... guaranty that this mess will be cleaned up if they don't make it to the 40-year mark or the 500-year mark? What is the plan to keep this out of the taxpayers' hands?	FIN01
<b>Sender Name (Submission ID)</b> Kim Wolff (41267)		
9309	The eventual loss of jobs from the environmental desecration of our lakes that tourists fish, loss of wildlife that bring people to our area to view, will outweigh the temporary increase in jobs to the area.	SO01
9310	Projected rises in Mercury levels are not specified. Please ask the questions and demand answers for the what ifs for worse case environmental disasters.	MERC01
9311	The environmental impact statement is inaccurate as to poor test sites relating to the rivers that feed our lakes.	WR003, WR081
<b>Sender Name (Submission ID)</b> kim wood (44681)		
7119	The economic plans to ensure ongoing water quality and mine maintenance after the mine has shut down, are, in my mind, flawed.	FIN08, WR037
7126	The health impacts are unclear.	HU01
<b>Sender Name (Submission ID)</b> Kimberly E Olson (57178)		
18672	Please don't take our Freedom of Nature away from us. We fish, swim, plant gardens, go hunting, hiking, and go camping. People come for vacations as well. The woodlands are great for getting away.	LU06
18673	Don't let the corporation's pressure you. Do what you know is right. Please leave our 10,000 lakes alone.	SO02
<b>Sender Name (Submission ID)</b> Kimberly Miller (44875)		
8088	The plan PolyMet has put forward to deal with contaminated waste water is NOT adequate. ... Please deny PolyMet a mining permit and ask them to develop a better plan for dealing with waste water.	WR128, WR195
8092	I don't want to have to explain to my children that it was "good for the economy" when they see our most unique and valuable ecosystem harmed for generations.	SO02
<b>Sender Name (Submission ID)</b> Kira Church (57185)		
18656	The health of the BWCA and surrounding area is really important part of not only visitors who come to camp, but also Native American culture and all types of ecosystems. It is important that we protect these ecosystems and cultures.	SO02
<b>Sender Name (Submission ID)</b> Kirby (44497)		
10643	I believe this Polymet Mine can take place at a later time when environmental processes and abatement procedures are improved.	PD32
10645	I don't believe Polymet can make a case that there is a shortage of Copper or Nickel that necessitates any mining to be conducted now or near term	NEPA03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kirby (44497)		
10647	I never see anything published in local newspapers or voiced on the radio as to what the mines do to meet NAAQS & Clean Water Act requirements.	PER35
10649	Lead & mercury will be leached into the land, air & water.	AIR05, MERC20, WR070
<b>Sender Name (Submission ID)</b> Kirk Haldorson (18369)		
14674	I don't want to be dependent on China or another world. Everybody that took us down here today used copper. Everybody that has a phone has copper. Where are we going to get this from? Our country – our state and our country needs to be independent. So give them a chance.	SO10
<b>Sender Name (Submission ID)</b> Kirsten Anne (11515)		
2467	The jobs will only last twenty or so years but the cleanup could last more than 500.	FIN10
<b>Sender Name (Submission ID)</b> Kirstin van den Berg (47081)		
11224	My biggest concern with a copper nickel mine is the potential for contamination of our natural water systems. I understand that a potential water contamination analysis was done, but that it did not reflect the appropriate depths of drilling/mining and its effects on the surrounding water tables. Water tables are infinitely connected...I am worried that if a contamination situation should occur, that it could be dangerous. I do not believe that Polymet could control the contamination even if they had the financial resources to do it.	WR037, WR071
11225	More and more of our population (especially young people) are getting sick with cancers and other body systems disorders. Everything that we put into our air, soil and water contributes to our well-being. A copper-nickel mine that has so many risk factors is not an industry that will contribute to a healthy living environment in our state.	HU03
11227	Copper-nickel mining may seem like a good short-term solution for local jobs, but is not a good long-term solution for a state where we pride ourselves on our clean air and clean water.	SO01
<b>Sender Name (Submission ID)</b> Kit Richardson (54827)		
18543	I am very concerned about the potential negative impact on...the other business which creates many more jobs in this region than the 350 jobs touted by Polymet; the tourism industry, which could disappear with the potential destruction of the Boundary Waters, the St Louis River watershed, and other protected wilderness areas in this state.	SO02
18545	the evidence included in the Polymet SDEIS suggests very clearly that there are still too many unanswered questions and concerns for you to permit this project, and any others like it, to move forward.	NEPA09
18546	I urge you to reject the Polymet application and to rather encourage job creation by protecting our natural resources and promoting environmental tourism in the area.	SO02
18547	if you feel strongly that we need more copper and nickel, perhaps you could support a greater degree of recycling of all our existing machines and devices which contain those metals.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Kitura Main (44399)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kitura Main (44399)		
10606	The water modeling needs to be reworked.	WR189
10608	This WILL compromise our health and State.	HU03
<b>Sender Name (Submission ID)</b> Kiyrie Abernethy (44367)		
10382	The proposed mine's economic boons would be short-lived compared to the environmental degradation caused.	SO01
10386	This project would threaten the Boundary Waters Wilderness Area, the crown jewel of our beautiful state.	WILD02
14963	The project is estimated to create 50-100 jobs, but these jobs would be cyclical, causing an initial boom and then a bust for the workers. The environmental impacts could last 500 years longer than the jobs.	SO01
<b>Sender Name (Submission ID)</b> Kjen Fromberg (42526)		
15534	I have full faith in the DNR And EIS on clean production. Get the permits going!!!	PER34
<b>Sender Name (Submission ID)</b> kkelnberger (20883)		
1859	We have been studying the proposals and feel that the money that is being set aside for clean-up is not sufficient. The mine will fail. The taxpayers will get the bill.	FIN05, FIN10
<b>Sender Name (Submission ID)</b> kkenned2@d.umn.edu (40252)		
9525	There is no guarantee, and no proof of even one of these copper mining sites has ever left the mining site able to regrow vegetation, much less enhance, restore or improve our environment.	VEG05
9528	In 2008, Minnesota's voters passed the Clean Water, Land and Legacy Amendment (Legacy Amendment) to the Minnesota Constitution to: protect drinking water sources; to protect, enhance, and restore wetlands, prairies, forests, and fish, game, and wildlife habitat; to preserve arts and cultural heritage; to support parks and trails; and to protect, enhance, and restore lakes, rivers, streams, and groundwater.	PER35
9530	This copper is a want more than a need.	NEPA06
14135	We need to be the state that refused to allow the destruction of our wetlands, forests and lakes for the short term gain of a few jobs and large financial gains for foreign corporations.	SO01
<b>Sender Name (Submission ID)</b> klarstrom (44825)		
7774	The SDEIS does not adequately take into account bedrock fault lines, which could channel unknown quantities of compromised water in unclear directions.	WR010
7775	The capture of polluted water is not necessarily as effective as the SDEIS portrays. The SDEIS should be re-done with a more realistic number.	WR017, WR018

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> klarstrom (44825)		
7777	With polluted water needing treatment far, far into the future, a proper financial assurance for funding for this activity must be part of the plan. This must include inflation calculations with a generous margin for error.	FIN01
7778	I believe that baseline water flowage data used as a basis for the SDEIS is grossly underestimated. The SDEIS must be re-done with flow rates closer to real-life and worse-case numbers.	WR003
7780	The human cost to innocents is not adequately reflected in the SDEIS.	HU01
7801	An escrow account large enough to attempt to compensate harmed persons, individually or collectively, whether for medical consequences, loss of tourist trade, or other unforeseen harms, needs to be included. It might be needed for 500 years, and should include monies to help defray legal costs so harmed individuals can obtain justice.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Kolleen Kennedy (18345)		
2528	How many jobs are going to be displaced?...Minnesota alone spent 11 billion dollars in outdoor recreation, and that brought in over eight million just in state and local taxes. No one has addressed those jobs that are going away because we are going to have this horrible mine.	SO04
14626	I mean this legacy tax that we voted in was to protect our waters and not to allow them to be destroyed. I don't want to be a state that 50 years from now puts a fence around it, like I think our neighbors are going to have to.	WR195
<b>Sender Name (Submission ID)</b> Kory Koch (16987)		
1638	I believe the job creation of good paying positions outweighs the environmental impact by a long shot. I also believe the state of Minnesota needs the economical boost	SO01
<b>Sender Name (Submission ID)</b> Kris Emly (39779)		
14252	Tourism is so important to MN. The last thing we need is another source of pollution. Please do not let this business destroy our waters and land.	SO02
<b>Sender Name (Submission ID)</b> Kris Peterson (43731)		
11776	One of our most precious commodities is water and with the way things are going clear water and air are getting more and more important everyday. For the DNR to be even considering a mining project such as this is not only short sighted, it is wrong.	AIR11
<b>Sender Name (Submission ID)</b> Kris Simonson (47777)		
11248	I am frightened about the potential (perhaps certain) destruction to my home if companies like Polymet move in to expand on toxic and dangerous mining practices, all for the sake of economic gain.	SO02
<b>Sender Name (Submission ID)</b> Krishna Woerheide (43612)		
12547	In the history of mining, there has not been one case of a sulfide mine that did not contaminate the area waters, sometimes for hundreds of years after the process. To set about mining in a watershed which empties into one of the world's largest bodies of fresh water is very risky.	WR111

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Krishna Woerheide (43612)		
12549	Polymet has not shown that they can mine safely in this area, history and documents have shown that they have not done so before. The rock piles will need to be treated for 500 years after mining is complete.Are they willing to make that financial deposit before mining commences?	FIN01
15106	I don't believe sulfide mining is a viable undertaking in Minnesota's Northland, nor do I believe the companies involved are entirely honest about the economic gains and the destruction they will cause here.	SO01
<b>Sender Name (Submission ID)</b> Krista Weiland (54358)		
18210	This project would damage Minnesota natural resources such as lakes, forests, and wild rice production. ... Another negative effect of this mining is water contamination. If this happened, you may have a whole city without water. It could possibly affect a larger region as well.	WR043, WR111, WR156
18211	It would also affect historic and cultural icons that are crucial to Minnesota.	CR05
18212	This project also could affect wild rice production. Minnesota distributes much of America's wild rice.	VEG04
18213	This proposed project could cause long term unsettlement for animals and for the local residents.	LU06
18214	The pollution could even affect all of Minnesota residents.	AIR09
18215	I think that there very few short term advantages and many long term disadvantages.	SO01
<b>Sender Name (Submission ID)</b> Kristan A Wegerson (38584)		
9724	MN Rule 6132.3200 does not allow perpetual treatment and a reasonable person would conclude that the proposed action would entail perpetual treatment. The proposed project cannot legally proceed.	PER04
9727	PolyMet has proposed an Adaptive Water Management Plan (AWMP) that identifies additional measures the firm could take if necessary to prevent any exceedances of water quality standards.”...the details of the “Adaptive Water Management Plan” are not in the SDEIS.The SDEIS is deficient.	PD22
9729	I am skeptical of Minnesota’s regulatory agencies when they can grant variances on permits so that mining companies can evade “Minnesota’s tough environmental regulations”. The P90 threshold means that 10% of the time the concentration of solutes including metals, would be higher.	WR192
9733	It is false to compare the modeled water quality conditions to current conditions because they (current conditions) are in violation of current water quality standards. Current conditions should be cleaned up before more pollution is added to the waters.	WR051, WR108
9736	“Correction factor(s)” and “calibration factors” had to be applied. 5-62 The details of the models and the “fudge factors” are not given in the SDEIS. The SDEIS is incomplete and deficient.	WR050
9741	David Blowes, an expert on liners used in mining ... stated that, “All liners leak”. It takes an average of 8 years before this happens.” These stockpiles will be open to the air and on liners for more than 8 years before they are placed subaqueously. "Seepage through liner would enter the underlying groundwater system”...There is likely to be acid mine drainage from these stockpiles.	PD15, WR127

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Kristan A Wegerson (38584)	
9749	The tracts of land that are proposed for transfer are small ... and don't compare to the size and quality of the lands that would be transferred. Tract 1 has hazardous waste material on premises, ... and was logged in the past 60 years and has immature forest. Tracts 2, 3 and 4 have limited accessibility. ... have outstanding mineral subsurface rights. Because the land exchange involves the transfer of unequal valued land, it is in violation of the FLPMA.	LAN03, LAN04
9766	Mercury deposition would degrade the water resources of the Partridge and Embarrass River watersheds in violation of Minnesota law.	MERC23
9771	Figure 5.2.2-53 shows that annual maximum concentration of sulfate in the Embarrass River downstream of the PolyMet Plant site would be well over 100 mg/L for the 200 year modeling period. 5-200 This would be in violation of Minnesota's wild rice standard.	WR162
9774	GLIFWC notes... for example the cumulative effects section for the Partridge River, the test states all water evaluation criteria would be met, though water quality standards would be exceeded for several constituents."The proposed project does not meet water quality standards.	WR107, WR109
9796	The wetlands to replace those at the Mine Site would be out-of-kind and off-site and are significantly inferior to those being lost. Because the land exchange is not in compliance with EO 11990, it can not proceed.	WET04, WET14, WET15
9797	The data in Table 5.2.7-14 indicate that calculated visibility impacts greater than 5 or 10 percent could occur at some point within the BWCAW on a small number of days each year." 5-415 This would appear to be in violation of the Class I airspace protections.	AIR08
9801	I have serious doubts about the geotechnical stability of putting millions of tons of material on the aged and deficient current tailings basin...the geotechnical stability of the stockpiles and liners is still unknown...The SDEIS is incomplete and deficient	GT01, GT04, GT10
9803	The omission of financial assurance from the SDEIS is a fatal flaw...Does financial assurance cover the cost of a major environmental disaster during mining if the company can't afford to pay? Will the public pay?...If you assume that the post-closure period would be 480 years (500 years at the Plant Site-20 years of closure) you get \$2.256 billion dollars (\$4.7 x 480). And these estimates are in 2014 dollars! This is inconceivable! Read SUPERFUND SITE.	FIN01, FIN13
9806	"Cancer risk from monitored background air concentrations (3E-05) is greater than the incremental cancer risk guideline value of 1E-05, thus cumulative risk is also above this value." 6-88 This is saying that Polymet will be hazardous to your health.	HU05
14036	...the solution to pollution is dilution, and we don't have any other plans to contain this. Without a plan to prevent this acid mine drainage in the first place, and without a plan for "adaptive water management" if it does occur, the SDEIS is deficient.	WR130
14037	If the XP-SWMM and GoldSim models are inaccurate, the entire water quality evaluation is unreliable and should be rejected. ...the model used by PolyMet underestimated low flows during winter by as much as a factor of five in many cases...DNR hydrologist Mike Liljegren said it is "more than likely" that a new water quality model will need to be developed before a final version of the SDEIS can be issued. And new modeling on water quality could well impact other results in the study, requiring new runs of the other models in the SDEIS. "	WR003
14039	[non-native invasive] plants should not be used for revegetation	VEG05
14040	Destroying [Canada lynx] habitat in LAU 12 or causing a decrease in its quality or quantity would be in violation of the ESA as enforced by the USFWS.	WI02, WI11
14044	The PolyMet Proposed Action has not determined how it will safeguard...protected resources [that are important to Ojibwe culture]. The SDEIS is deficient.	CR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kristan A Wegerson (38584)		
14047	The Land Exchange ... represents an exchange of access to natural resources expressed in treaties made between the United States and Bands of Ojibwe Indians in the 19th century...On the whole, given the inferior quality of the lands proposed to be transferred to the USFS, and the loss of the superior quality lands with their unique resources to be transferred to PolyMet, I believe this action will blaze a new segment on the “trail of the broken treaties” and would be illegal.	CR01
14049	I do not have faith that the Minnesota regulatory agencies will have the will to enforce environmental regulations given that it has been 13 years since LTVSMC went bankrupt and its legacy pollution hasn’t been cleaned up. Add to this the Dunka Mine which is causing acid-mine drainage into Bob Bay in Birch Lake (20 years after closure). The INCO Site is causing acid-mine drainage off the Spruce Road (40 years after only 10,000 tons of ore were mined). PolyMet has the makings to cause the worst environmental disaster in Minnesota history.	PER06
14050	For the DEIS in 2009, mercury emissions were regulated such that there could not be new source emissions of mercury unless there was a corresponding decrease in mercury at another emission source. It appears that the regulations were revised by MPCA in 2012 so that these new emissions would be allowed. Another example of “regulatory flexibility”.	MERC01
14051	"...the potential exists for the release of amphibole mineral fibers from the proposed operations, which could pose a potential health risk of uncertain magnitude."...The SDEIS treatment of the asbestos risk is incomplete and the SDEIS is deficient.	AIR03
<b>Sender Name (Submission ID)</b> Kristen Damberg (15753)		
12038	Far too high to risk to the only land and water we have to do copper/nickel mining in Northern MN. Jobs NOT worth polluting ruining our beautiful state!	SO01
<b>Sender Name (Submission ID)</b> Kristen Meyer (39259)		
5509	Hundreds of years (500 according to PolyMet) of monitoring and treatment don't justify the short term jobs/resource use gain! PLEASE take the responsible LONG VIEW and make a stand for the State of Minnesota - today and tomorrow!	SO01
10976	WATER is Minnesota's greatest asset and will be the resource most valued in the years ahead; the mines will come, extract, and go, providing relatively short term benefit and long-term negative environmental impact.	SO01
10977	Let us be patient and wait until we have extraction technology that can TRULY guarantee no negative environmental impact.	ALT16
13875	Certainly job creation is important, but not at the high cost of threatened water quality for generations to come!	WR115
<b>Sender Name (Submission ID)</b> Kristin Eggerling (22522)		
9957	The risk far outweighs the potential benefit. Jobs are important, but few real, long-term jobs will be created...Creating jobs that are not sustainable is shortsighted and a waste of our precious resources.	SO01
9958	Our health and the health of the earth will very likely be negatively impacted. Our ground water, our surface water, our boundary waters are far too critical to gamble.	HU03
<b>Sender Name (Submission ID)</b> Kristin Foster (43213)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kristin Foster (43213)		
16149	While many of the families who have earned their living from mining are categorically supportive of any mining venture, others recognize that corporate profit from exploiting natural resources does not necessarily coincide with the interests of human health, economic and social justice, and community well-being.	SO01
16150	major questions remain in the areas of ... equitable land exchange	LAN03
16151	major questions remain in the areas of ... levels of toxins including carcinogens in water	WR042
16152	major questions remain in the areas of ... effect in the health of infants and children	HU01
16153	major questions remain in the areas of ... damage to endangered, threatened, and special concern plant and wildlife species, including our already declining moose population	VEG01, WI01
16154	major questions remain in the areas of ... the effects of the introduction of non-native species in reclamation efforts	VEG05
16155	major questions remain in the areas of ... legality of authorizing an operation where clean-up will be ongoing	COE04
16156	major questions remain in the areas of ... possible negative effects of this mining on other sectors of the local economy	SO06
16157	a gain of 300 or so jobs and their spin-off economic gains for the next 20 years, given the above unanswered questions and risks, does not constitute this stewardship.	SO01
<b>Sender Name (Submission ID)</b> kristin palmer (4566)		
1850	The destruction that will happen ... would destroy not only the livelihoods for the people that live there but also the tourism industry and all the money that brings to the area.	SO02
1851	The promise of jobs to the area is not permanent, but the pollution will be. The risk of this mining does not out way the benefits.	SO01
<b>Sender Name (Submission ID)</b> Kristin Wharton (45170)		
8768	The impact of sulfide, mercury, and other byproducts of sulfide mining on human health have not been adequately addressed in this process.	HU01
8771	The potential threat that the polymet mine poses to human health is not a risk that I accept.	HU03
<b>Sender Name (Submission ID)</b> Kristin White (9848)		
316	EIS is not clear on how long pollution control, reclamation and water treatment will take after the mining operations cease.	PD05
317	I am gravely concerned about initiating a multi-million dollar project which will have a centuries-long impact on Minnesotans without hard, concrete facts regarding the potential harm to water and river flow in the region.	WR038, WR128

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kristin White (9848)		
318	I am concerned the EIS itself contains flawed and/or inaccurate data concerning the effect the mine will have on the Partridge River flow. Recent developments have shown the DNR has admitted that estimates of the proposed mine's impact on the river are nearly three times too low.	WR003, WR086, WR091
319	Third, I believe that the costs of the mine greatly outweigh the benefits and am concerned the DNR did not conduct a proper cost-benefits analysis.	SO01
320	If PolyMet is not around to restore water and forests, who will pay for this? I believe that until we can answer that with certainty we should move forward with this plan.	FIN01
321	I would request the DNR take the No Action Alternative wherein the NorthMet project is not implemented and no land transfer takes place because: (1) the parties cannot concretely determine how long the environmental damage will last; (2) the EIS contains flawed river flow data; (3) the costs greatly outweigh any limited benefits; (4) PolyMet cannot guarantee it will be in existence for the duration of the environmental restoration; and (5) PolyMet has not posted a bond to ensure funds are available for pollution problems and mine reclamation.	ALT01
1398	I would propose that PolyMet post a bond, estimated in the amount of \$500 million in order to provide financial assurances that it will be able to pay for the long-term water treatment and that, even if the company goes out of business, it will continue its commitment to the state of Minnesota. Absent a bond in an amount that would cover any environmental degradation and subsequent litigation, I would recommend not moving forward with the planned project.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Kristina Pogorelc (42087)		
2018	the SDEIS is insufficient ... because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN01
2020	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
2021	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats. This trade-off is not worth the risk.	SO01
<b>Sender Name (Submission ID)</b> Kristina Smitten (44371)		
10404	We cannot continue to favor short-lived economic gains compared to long-lived environmental fragility; as the real long-term economic costs are almost incalculable.	SO01
10407	The lack of clarity in long-term environmental and human impacts as well as lack of full analysis of alternatives, leaves large gaps in ability to provide a solid decision. A decision to approve is not acceptable.	HU01
10415	Deny PolyMet a state permit to mine.	PER35
10416	Reject the SDEIS as inadequate and the PolyMet project as environmentally harmful.	GEN01
<b>Sender Name (Submission ID)</b> Kristine M. Maurer (43335)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kristine M. Maurer (43335)		
11344	Minnesota is home to so many beautiful ecosystems and places that are treasured by millions of people and I feel it is only just that these ecosystems are protected and preserved so that future generations of Minnesotans can enjoy and observe them in the same condition and capacity as we do today.	LU06
11347	Evidence from peer-reviewed research and the environmental consequences observed in states where sulfide mining has been employed, strongly suggest that allowing this type of mining operation to exist in the same watershed as some of Minnesota's most valued wilderness areas and sensitive ecosystems will be catastrophic to the legacy and condition of these areas.	WR023, WR195
11354	Many of the lakes in Northern Minnesota, including Lake Superior and those in the Boundary Waters, have low alkalinity and therefore have a low buffering capacity against changes in pH. When pH decreases (becomes more acidic), say as a result of sulfuric acid in mining effluence, calcium carbonate becomes less available and the solubility of silica is reduced.	WR001, WR111
11359	These consequences of increased acidity can reduce the viability and success of biota such and snails and clams which need calcium carbonate to build their shells, and to diatoms which need silica to build cell walls. Studies have demonstrated that waters acidified by acid mining drainage (AMD) can cause complete changes in the community composition of diatoms. Diatoms are a main primary producer in oligotrophic (low primary production) systems and alterations in their community composition could cascade into issues and changes throughout the food web.	AQ08, AQ21
11364	Because water bodies in northern Minnesota are oligotrophic and often have long water residency times, the influences of mining contaminants can be long-lasting. Decomposition and growth is slow in these systems which can equate to more accumulation of toxins in sediments and increased bioaccumulation of toxins in the tissues of animals such as fish. These consequences could impact the fishing industry and the health of those who consume fish (e.g., humans, birds, other wildlife) from areas exposed to AMD.	AQ08, AQ21
11369	Wetlands are like ecological kidneys; filtering and decomposing contaminants and retaining sediments that could otherwise end up in streams, rivers, and groundwater. As a result, they play an invaluable role in the condition and safety of municipal water. Removing over 1,000 acres of wetlands for mining would reduce key habitat for migratory birds and would be detrimental to water quality in the surrounding watershed.	WET24, WI02
11372	I recognize there is potential for job development with the success of sulfide mining. However, its economic return is short term. Like hydraulic fracking, sulfide mining is unsustainable and in the end will leave in its wake irreversible and costly destruction.	SO01
11373	I urge you to think of the billions of dollars the wilderness areas and ecosystems in northeast Minnesota are worth, not only for their tourism and industry value, but for the ecosystem services they provide (e.g., mitigating floods, cleaning ground and surface waters, providing critical habitat), and the intrinsic value they have.	SO02
11375	Please love this state as much as I do and refuse to let sulfide mining rape the integrity and condition of the irreplaceable habitat and wilderness areas in northeast Minnesota.	WILD02
<b>Sender Name (Submission ID)</b> Kristine Mosher (54488)		
18020	I have reviewed a few sections of the SDEIS and found that there is no provision to monitor Mercury pollutants that could be present in the water that is returned to the environment.	MERC16, MERC17
<b>Sender Name (Submission ID)</b> Kristine Norton (46911)		
10822	I understand that this company has little experience, is not focused on Minnesota and keeping the area free of contamination, but is instead happy to dig up the land near our pristine wilderness and lakes.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Kristine Norton (46911)		
10823	I read, today, in the Star Tribune that PolyMet has a poor environmental and human rights record and has an agreement to sell copper concentrate to China. ...This is NOT a good move for the State of Minnesota!	SO02
<b>Sender Name (Submission ID)</b> Kristine Osbakken (18381)		
2858	PolyMet claims that this increase in mercury to the Embarrass River won't affect mercury in fish in the St. Louis River because of the water treatment plant that will operate when the mine is closed and the west pit is flooded. Referring to SDEIS page 5-8. However, it will be 40 years until the treatment plant kicks in. What about all the mercury pollution within that 40 years? The fish are not fit to eat in the already heavily polluted lower St. Louis River.	MERC02
2864	the PolyMet SDEIS does not adequately address [mercury] effect the lower St. Louis River.	MERC19
2869	The PolyMet SDEIS should not be finalized, nor the project approved, until a full study of the TDML of mercury in the St. Louis River proves that PolyMet increased mercury loadings will not increase fish contamination.	MERC22
3206	How much polluted wastewater is going back and forth through nine miles of pipes? What is the total volume wastewater in the tailings and the processing residue? Just how polluted is the wastewater and waste rock piles in the pits, pump ponds, tailings basin and the hydro-metallic waste dump? These answers are missing.	PD15, PD30, PD36
3207	Once pollution is in the groundwater, it will be too late to fix. It will affect the Partridge, Embarrass, it will affect the whole entire St. Louis watershed	WR115
<b>Sender Name (Submission ID)</b> Kristine Vesley (43225)		
15820	All in all, I believe that the risks and wetland losses outweigh the possible (and short-term) economic benefits.	SO01
15821	The wetlands and waterways that would be lost and/or contaminated are precious to everyone in Minnesota.	WET24
15822	There is no way PolyMet could provide financial assurances sufficient for a real disaster, and we all know real disasters can and do happen. Some disasters cannot be cleaned up with dollar bills.	FIN01
15823	I have learned enough to worry about the water issues, including any potential mercury and other pollution of the treasure that is Lake Superior.	WR111
<b>Sender Name (Submission ID)</b> Kristy M O Neill (11606)		
3257	The amount of efforts gone into mining could be put into something much more sustainable...so that seven generations into the future wouldn't question our value of their life.	SO02
3257	The amount of efforts gone into mining could be put into something much more sustainable...so that seven generations into the future wouldn't question our value of their life.	SO02
14244	It doesn't seem as though it would ever be a question, the risk of damage to our environment and water shed is too great...if one had no safe water to drink, they would then realize how precious every drop is.	WR041, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kristy M O Neill (11606)		
14244	It doesn't seem as though it would ever be a question, the risk of damage to our environment and water shed is too great...if one had no safe water to drink, they would then realize how precious every drop is.	WR115, WR195
<b>Sender Name (Submission ID)</b> Kurt (43702)		
11924	I am not convinced that the SDEIS adequately considered alternatives to the project as designed. The option of an underground mine needs more consideration.	ALT06
11925	The SDEIS did not demonstrate that the technology proposed to prevent acid mine drainage will work at scale and over the many decades necessary to protect Minnesota's water quality.	WR129
15095	[The SDEIS did not] demonstrate that the funding will be available to implement that technology over the next several centuries.	FIN01
<b>Sender Name (Submission ID)</b> Kurt Seaberg (44647)		
12241	The number of jobs generated will be small and temporary and the risk of irreparable damage to Minnesota's environment will be enormous.	SO01
<b>Sender Name (Submission ID)</b> Kurt Wetzel (54911)		
19236	This document fails to place the prospective mine within a larger historical, economic, and environmental perspective--the big picture (tbp)--necessary for comprehensive understanding and evaluation of its proposals; without such contextual broadening the document is reduced to a mere roster of data. Indeed, the SDEIS itself eschews any such contextual analysis (p. 6-1, "It is not possible, however ....").	CU14
19245	The primary failing of the SDEIS is that, seen from a broader perspective, it is internally inconsistent, reflecting a larger social schizophrenia wherein we demand both economic growth and a functional environment. Because the planet is already overpopulated and over-engineered, environmental impact must inescapably accelerate as function of economic growth. The proposed mine is but an increment in both these latter processes.	SO04
19246	At some scale the costs of growth outweighs the benefits and additional economic expansion becomes irrational: we end up poorer rather than richer, worse off rather than better off. This is happening because many costs are not being internalized, primarily, though not exclusively, environmental.	SO01
19256	Polymet, besides its main business focus of concentrating various metals from low grade ores, is additionally mandated to concentrate and contain a host of substances from its waste streams. In order to do this it must disperse something else, i.e. create and release a compensatory high-entropy flow into the environment. This stream in turn is chosen so as to avoid regulation: atmospheric carbon. Technology can thus shift the specific form of compensatory entropy, but not its required (by the second law of thermodynamics) amount. Until we throttle the rate of atmospheric carbonization to that which nature can cycle it, we will not be serious about impact control; we don't do that because in an industrial society based on fossil fuels, as that would stop growth. The SDEIS simply trades one form of impact for another, it does not reduce its quantity, and transforms it to a form that is not as localized and not as immediate. Carbon dioxide is transparent and therefore out of sight.	AIR01
19259	The SDEIS has a glaring omission: enforcement of the conditions of the permit. The entire document is strewn with verbs in the future, subjunctive, and intentional verb tenses--what Polymet will do, how they would respond, and what actions they will take to address changing conditions. Promises being cheap, actions and solutions being expensive, enforcement is critical.	PER06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Kurt Wetzel (54911)	
19261	The land trade proposal is the primary failing of the SDEIS with respect to enforcement; in our society property endows the owner with power. Owners have dominion over their land. Once the surface property is traded away the SDEIS will become only so much meaningless paper, and the mine site will be immediately fenced, gated, and guarded (fgg). A split estate gives wtp leverage; a united estate reduces public inspectors and regulators to either guest or trespasser status. This is forewarned by language of the SDEIS in reference to areas of the project now owned by Polymet, stressing that it is private property (pp.4-166, 4-314, 4-350, 5-513).	LAN04
19263	There still ought be a fence and a gate for security and safety considerations, but the guardhouse must be staffed by a public employee. Polymet will still own the minerals, but the mine must remain property of wtp. If mining is inconsistent with the management goals of the USFS, then management of the the mine site lands ought be transferred a more appropriate federal agency, say, the Environmental Protection Agency. In any case, the federal government would have to be reimbursed either in land or money for the surface degradation inherent to such a mine.	LAN04, PD30
19265	The regulating personnel would have to have an office or trailer on site, and be staffed by a rotating team of specialists, from construction inspectors, hydrologists, air quality specialists, to environmental chemists. They would be intimately familiar with the permit conditions and see that they are being fulfilled. Their reports, photos, and videos would be put on-line weekly so that wtp could be satisfied that our property interests are being upheld. Unrestricted access to the privately owned plant site and transport route by the inspection staff would have to be guaranteed as a condition of Polymet using public land at the mine site. This inspection team would be public employees and all their expenses would be paid from public funds, with both reimbursed by Polymet.	PER24
19272	The SDEIS must also require a financial assurance package, not only for shutdown and cleanup (after the company has extracted and sold their subsurface mineral property and can leave), but also for construction and operation. This gives wtp leverage which private companies respect: each permit violation would result in, for instance, a per-diem fine until the violation is corrected. At mine closure Polymet would re-coop all funds remaining in escrow. Thus there would be two financial assurance accounts, both fully funded, before any mining activity begins.	FIN05, FIN08
19277	The Cumulative Effects portion of the SDEIS not only fails, but fails spectacularly. The directive is to consider "reasonably foreseeable future actions" in the region. The joint preparers must be in need of strong corrective lenses if they cannot foresee as a direct consequence of the acceptance of this proposal a flood of subsequent sulfide mines in Northeast Minnesota. Approval of the SDEIS would be but a starting-gun trigger for a northern Minnesota copper-nickel rush. The cumulative environmental degradation would be disastrous.	CU04
19283	If wtp and our representative agencies were serious about environmental protection, we would, in lieu of outright rejection, cap-and-trade this type of mining: we would put up for auction one and only one (the cap) right-to-mine permit (rtmp) for sulfide mining. This would be the single and only such rtmp let. Any person, any company, or any organization could bid on the permit. Once the high bidder paid the winning bid price, the permit would become their property, which they could sell (the trade), lease, exercise, or hold indefinitely without exercising their rtm. Once a company acquired the rtmp, through either auction or subsequent purchase, and exercised that right to mine( subject, of course, to all regulations and standards within the permit), both the permit and the mine would have to stay in the same estate--until the mine was closed and successfully re-claimed according to permit prescription, including a specified post-closure span. Then and only then could the rtmp be re-exercised, sold, leased, or held.	NEPA01
19286	In lieu of a cap-and-trade scheme, the regulatory agencies ought minimally issue a moratorium on any subsequent mine once an initial permit has been granted. Granting of subsequent permits would depend upon the land stewardship success of the initial mining and closure operation. Thus the first sulfide mine would be an environmental test-case. For a host of economic efficiency considerations, this is a much less desirable option than cap-and-trade.	NEPA01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Kurt Wetzel (54911)	
19292	The minutia within the land trade scheme was largely a smoke-screen for the central issue: what is the final environmental loss, not whether or not the land trade balances with respect to land types, functions or value. Nature doesn't care to which estate it belongs, or whether it is public or private. These are but scribblings in a county ledger. The SDEIS should have included a concise summary of how much of the planet's ecosystem would be destroyed and compromised if this proposal is realized. In addition it should have given the global rates of such destruction so that the public could better understand that this unsustainable global trend just is the cumulative effect of such incremental impact as in the proposal.	LAN01
19299	The SDEIS omits a whole class of external costs, namely the social costs associated with the potential industrialization of northeast Minnesota. Indeed the Socioeconomics (p.S-493) portion of the document shows how slippery and subjective the whole concept of cost actually is; what is one person's benefit is another's cost. For a large portion of the residents of the Minnesota Arrowhead the reason they choose to live there is the relatively undeveloped quality of the environment. More people, more jobs jobs jobs, more roads, more traffic, more extraction, more commerce, man camps, rising crime ..... these represent what many of the current residents would have to give up, not what is gained. Ely, Minn. as Williston, N.D. I see no provision in the SDEIS which outlines a system of shunting money from the pockets of the beneficiaries of this new industry--mine employees, investors/owners, support businesses, etc.—into the pockets of those who bear the social costs.	SO04
19301	The title history of Tract 2 of the land exchange seems odd, even suspicious. Its title was in the public domain (Lake County), passed into the private domain by purchase, and then is to be used in exchange for public lands (p. 4-396). So what was once public becomes public again to offset loss of Federal land to Polymet. The purchase of county land by Lake Forest Enterprise, Inc. should have been detailed and made transparent in the SDEIS. Was this by auction as is usually required? or by backroom deal? What gives?	LAN04
19302	As the three lead agencies "have jointly prepared the SDEIS" (opening sentence of the COVER SHEET), how can it be that these same agencies that will issue the critical Record of Decision? So, they will be determining the adequacy of their own work? Is not approval a foregone conclusion? Who designed this arrangement? In any case, it is unacceptable. It would inspire much more confidence if an independent agency (the EPA for instance) or an independent committee appointed by Governor Dayton made the final decision to accept or reject the proposal.	NEPA08
19304	The several sections of the SDEIS dealing with GHG emissions are confusing and contorted. First it is noted that the annual GHGe emissions are under the USEPA threshold (Table 5.2.7-7), but we later are told that the threshold is not a limit, but rather would simply require BACT for these emissions (p. 5-429). So apparently Polymet will not be required to apply such technologies to its GHG emission sources. This is further egregious since the limit, $1.0 \times 10^5$ tpy, is arbitrarily applied to "stationary sources" only; if all the Polymet sources are totaled, they are nearly double the threshold (table 5.2.7-8). But still would be of no consequence, since the threshold is not a cap. The threshold is toothless, even silly. And if the indirect sources are totaled, the threshold is exceeded by a factor of over 7, with the same non-effect. The SDEIS is a permit to spew GHGs without limit and with the nod of our regulatory agencies, and thereby with the permission of all citizens. This ought be simply and directly stated.	AIR13
19305	But since the GHG emission rate totals are so enormous, the SDEIS attempts a rear-guard apology in the form of minimizing the numbers by comparison to state, national, and global rates: .44%, .01 %, and .0014% respectively. Note first that these would be hypothetical additions to the respective base rates. The Northmet Project would emit GHGs at a rate of nearly one half of one percent of the whole rest of the state! Just this one mine!	AIR01
19306	Why aren't some other emission comparisons listed? For instance, how many units of GHGe are emitted per unit value produced by this mine? and then give the number of units of GHGe/GDP for comparison.	AIR01
19307	These GHG numbers are especially troublesome given the (albeit, denied) likelihood of a half dozen or more of such new mines. Because these likely mines are not considered, the cumulative numbers are not "done".	AIR01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kurt Wetzel (54911)		
19308	Given the volume of the SDEIS, its most notable success is the effective limit on serious and thoughtful commentary by the abbreviated time allowed for its reading, for subsequent deliberation, and comment writing.	NEPA07
<b>Sender Name (Submission ID)</b> Kyle Crocker (20189)		
9510	The PolyMet SDEIS does not begin to properly evaluate risk, much less plan for an array of potential and very long-term failures. It must be withdrawn and completely re-envisioned, not simply redrafted.	PD01
<b>Sender Name (Submission ID)</b> Kyle Lindy (47620)		
7427	I must say three months is an insufficient period of time for the public to be able to digest this information and submit informed opinions on this proposal.	NEPA07
7428	The SDEIS should have an underground mine option, the lack there of renders should render this SDEIS inadequate.	ALT01
7434	According to the SDEIS plumes of toxic water with sulfate concentrations as high as 19.6 m/L...will be sent into the partridge river during mine closure along with any other toxic pollutants present in the mine pit lakes. We now know that any level of Sulfates is detrimental to the growth and seed production of wild rice, and the State Standard is 10 m/L.	VEG04, WR162
7436	This Project proposes the largest permitted wetland destruction ever in Minnesota's history.	WET23
7441	PolyMet should redo the water flow study for which most all of the important data concerning the treatment and travel time of mine wastewater, and contact water on the site is dependent upon even if our policy makers aren't going to demand it.	WR025
7447	[Polymet should] give us some indication how many years these toxic mine pits and the tailings basin will have to be treated.	PD07
7457	[Polymet should] fund a study to see how this mine may impact sustainable jobs in nature based tourism that already exist with in St. Louis and Lake County, as well as how the county is going to deal with the increased infrastructure, and public services demands this mine will have...	SO04
7461	PolyMet should fund the research to answer these questions that could lead to serious and long lasting public health issues that Minnesota families would be left paying the price for.	HU01
7466	[Polymet should] lay out detailed plans for how they are going to deal with normal accidents, equipment failures, environmental anomalies like torrential rain falls, or unexpected major leaks in the water containment systems and liners that may occur during the Centuries long life of the mine including post closure.	PD22
7471	It is short sighted and a violation of public trust to approve a mine that may very well cost taxpayers millions of dollars to clean up, has unknown public health impacts, has unknown impacts on a vibrant tourism industry, has very real and measurable impacts on clean water, air, and wetland resources.	FIN10
<b>Sender Name (Submission ID)</b> Kyle R. Crocker (23928)		
10308	Much of [the SDEIS'] data on the hydrology of the sensitive areas concerned is outdated and/or misconstructured. This is especially true of the proposal to dump tailings from the mining process on top of the former LTV Steel's tailings basin, which was built in the 1950s on top of three streams, and was designed to leak.	WR071

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kyle R. Crocker (23928)		
10310	There is also general inattention to contingency planning for a number of very possible failures that could have devastating effects on the whole of the St. Louis River watershed, as well as related one and Lake Superior itself.	PD22, WR130
13111	The Supplemental Draft EIS for the PolyMet proposal for the sulfide mining operation based in Hoyt Lake is very deeply flawed...This is especially true of the proposal to dump tailings from the mining process on top of the former LTV Steel's tailings basin, which was built in the 1950s on top of three streams, and was designed to leak.	WR070
13112	There is also general inattention to contingency planning for a number of very possible failures that could have devastating effects on the whole of the St. Louis River watershed, as well as related one and Lake Superior itself.	WR130
13113	The PolyMet SDEIS does not begin to properly evaluate risk, much less plan for an array of potential and very long-term failures.	PD22
<b>Sender Name (Submission ID)</b> Kyle Richard Kopp (43021)		
12392	The first concern I have with the whole process of the mining operation is the runoff from the entire site and piles of earth that would be taken from the mining site...There are many streams and rivers around the proposed mining site. The runoff from the mining operation as a whole will affect all of these waterways in a negative way.	WR174
12399	The amount of air pollution from the mining operation while in operation will be immense. The air pollution from blasting and the dust from everyday activities of the mining process will get contaminated dust and dirt particles in the air and will affect the streams and wildlife for miles surrounding the mining area.	AIR11
12401	... the amount of fossil fuels burn will put major stress on the air quality not only around the mining site but also for many miles around and will increase of greenhouse gasses.	AIR01
12402	One problem that will come after the mining operation is finished is the erosion and degradation of the soil used to fill the pits while there is no vegetation. This will allow for quickened runoff and will still have dangerous pollutants in it.	GT09
12403	Another concern about the reclamation of the land after the mining is over is that the land will never be able to fully recover. It wont be able to produce the same amount of biodiversity as it did originally.	WI02
16966	... mining of this area is clearly going to have an adverse affect on the local wildlife in the area. First the clearing of the trees and other vegetation is a major burden of the natural habitat of the animal life.... mining will cause animals to have to change the current location and the noise and vibrations produced would be putting a stress on their life. this stress will make them have to change there habits and may affect the entire population of a specific species.	WI01, WI02, WI05
<b>Sender Name (Submission ID)</b> Kyle Strohmaier (44471)		
10969	The idea of endangering one of the most important freshwater sources on our planet by approving the NorthMet mine proposal is dubious at best.	WR115
10970	The first possibility for avoiding environmental havoc is for PolyMet to monitor the NorthMet site and actively prevent any acid mine drainage.	PD01
10971	It is nothing short of ludicrous to think that, hundreds of years from now, either PolyMet or Glencore Xstrata will not only exist but also take responsibility for an area from which they've long since squeezed their last profits.	FIN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Kyle Strohmaier (44471)		
10973	[The second possibility for avoiding environmental havoc is]...PolyMet leaves the NorthMet site with a sound infrastructure to passively prevent acid mine drainage	PD03
10974	This brings us to the final way to avoid polluting the water of Northern Minnesota – do not approve the NorthMet mine proposal	WR195
10975	Additionally, I urge the DNR not to be swayed by those who think only of the benefits over the next two decades, when the negative impacts of the proposed NorthMet mine would last for centuries.	SO01
<b>Sender Name (Submission ID)</b> Kyra Quillen (11343)		
271	We will only get 20 years of mining out of this area and it will ruin a great deal of our water.	WR115
1629	Even though the PolyMet Company will provide jobs for 20 years to many people, the taxpayers will be responsible for cleaning up mining sight. This will cost the taxpayers billions of dollars which would force our economy into a recessio	FIN10
1630	...copper mining will ruin 26 square miles of our beautiful forests. Copper mining will pressure Minnesota to tear down this area and we have already lost plenty of our forests. We will not only be tearing down 26 square miles of our illustrious forests, but much more to build homes for the miners.	VEG03
<b>Sender Name (Submission ID)</b> L J (45046)		
7161	The polymet proposal would be terrible for the environment and would contaminate our most precious resource--WATER!	WR111
7164	Forget the short-term profits and think about the enormous expense of trying to somewhat reverse the damage in years to come.	SO01
<b>Sender Name (Submission ID)</b> L.L. Kauffman (13363)		
113	The SDEIS is insufficient and should NOT be approved because it is lacking vital information about long-term water treatment and how it will be funded	WR035, WR128, WR143
114	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
115	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Lake Superior Binational Forum (54762)		
19238	As US Co-Chair for the Lake Superior Binational Forum, and on behalf of our members and Canadian CoChair, Mr Jay Eingold of Thunder Bay, ON, I am submitting for your consideration the enclosed document "Responsible Mining in the Lake Superior Basin." ... Our website, www.superiorforum.org has become a prime source for citizen stakeholder information.	REF01
<b>Sender Name (Submission ID)</b> LaMont Johnson (47635)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    LaMont Johnson (47635)

7656 [I] feel like the mining could open up more job opportunities and could be very beneficial. SO10

**Sender Name (Submission ID)**    Lance Groth (45639)

12846 Opposed to sulfide mining in Minnesota. 300 jobs is not worth trashing the ecosystem. SO01

12847 Centuries of waste water treatment, 200-500 years worth. Long after everyone involved today is dead, future generations will be left holding the bag for a polluted mess, and what recourse will they have? None at all. WR037

12848 Polymet says they will build a five mile cutoff wall anchored in bedrock to contain water that flows through the tailings. [Polymet's plan] can not guarantee there will be no fractures anywhere in the bedrock or the wall, before, during or after construction [ to contain the contaminant] WR019

12849 [No financial guarantees]. At a recent legislative hearing, talk of financial guarantees amounted to vague hand waving about financial instruments and an admonition that "this will be addressed during permitting." FIN08, FIN13

12850 benefits do not stay in Minnesota. PolyMet is a Canadian company that has never operated a mine (!) and that's where the profits will go. Glencore is a Swiss company with commitments to sell copper to China, and that's where the copper will go. Minnesota gets some crumbs in exchange for trashing its environment. SO06

12851 8) In terms of resource extraction, the mine simply isn't needed. The ore deposits are not even in the top 10. The world will have plenty of metals without Minnesota's ore. NEPA02

**Sender Name (Submission ID)**    Lance Johnson (18227)

2192 I would like to state that in my opinion, this -- is that the SDEIS is more than sufficient and it is time to expedite the final EIS in preparation for this project. NEPA16

2193 PolyMet will provide fantastic opportunities on the Iron Range by providing great-paying jobs for their direct-hire employees and -- and not just those 320 jobs, but -- and employees of Iron Range contractors and engineering firms, vendors, and other support industries. PolyMet will also generate millions of dollars in taxes for the State of Minnesota, and more importantly, millions of dollars that will go directly to the school districts and improving educational opportunities for our children. SO10

**Sender Name (Submission ID)**    Lance Kupka (18097)

3225 It is estimated that PolyMet will pay 15 million dollars in state taxes annually, once mining begins. ...this money will help provide more programs for our schools, more technology for our schools, and ultimately more opportunities once -- for the children once they graduate. SO10

13464 We know that the mine can operate safely and that PolyMet has committed to monitoring and treating the water for as long as need be. What is the decision? This mine will be safe. It will generate great income for the local workforce, and as I have outlined in detail above, it will have a tremendous positive impact on our schools and on our children for decades to come. SO10

**Sender Name (Submission ID)**    Larry (9503)

180 The SDEIS does not address any contingencies for possible problems for the next 200 years at the mine site and the next 500 years at the tailings pond. PD22

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Larry (9503)		
951	this SDEIS assumes these sites will be superfund sites, paid for by the taxpayers in the future, since no company in existence today can predict they will be in business 40 years from now, much less 200 to 500 years.	FIN01
<b>Sender Name (Submission ID)</b> Larry A. Stone (4289)		
1791	The supplemental draft EIS does not give adequate assurances either that the mining itself could be carried on without environmental damage, or that the site could be reclaimed in a way that would guarantee long term stability and environmental integrity.	PD01
1818	I do not believe that the short term gains of extracting the minerals would justify the potential for permanent, long term damage to the natural resources that are the backbone of Minnesota's economy.	SO01
<b>Sender Name (Submission ID)</b> Larry and Val Johnson (17301)		
1968	According to Minnesota Administrative Rules 6132.3200 CLOSURE AND POSTCLOSURE MAINTENANCE. ... How can 200 to 500 years of water treatment be considered maintenance free?	PER04
1969	Please protect Minnesota's water, our most important resource and deny permits for this proposal.	PER35
<b>Sender Name (Submission ID)</b> Larry Bogolub (18280)		
13978	...The beauty and peacefulness of the lakes, rivers and forests [in the BWCA] on which I traveled are unmatched by anything else I've experienced in my 16 years. I sincerely hope that the future visitors will be able to experience the BWCA in the same way. It is because of this hope that I am against the proposed copper-nickel mining in northeastern Minnesota.	WILD02
13979	The potential for harm to the BWCA is too high. It would be shameful to risk the eternal well-being of a national treasure for a short-term economic expansion.	WILD02
<b>Sender Name (Submission ID)</b> Larry Dolphin (45336)		
12794	This is what concerns me most about the Polymet proposal is the need for Polymet to treat the water for at least 500 years and provide the financial wherewithal to accomplish it. It is not realistic and in fact it is ludicrous to expect that to be accomplished.	WR035
<b>Sender Name (Submission ID)</b> Larry Hennis (6706)		
1294	Please - no mining is necessary. We need to stop selling out our futures to short sighted, short term profit interests. The environment is just too important to allow a project like this.	SO01
<b>Sender Name (Submission ID)</b> Larry Hylton (17246)		
9989	To destroy such a precious and diverse plant community that has taken thousands of years to form, in a time before mans influence on the land, can never be replaced.	VEG03
<b>Sender Name (Submission ID)</b> Larry J Ronning (11616)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Larry J Ronning (11616)		
2297	What will the concentration of sulfates be in the containment basins?	WR057
2297	What will the concentration of sulfates be in the containment basins?	WR057
2298	When a breach occurs, and it will, how will the catastrophic release be dealt with	PD11
2298	When a breach occurs, and it will, how will the catastrophic release be dealt with	PD11
<b>Sender Name (Submission ID)</b> Larry Kraemer (11583)		
2242	Please do not allow any restoration work in Sax-Zim Bog. The bog is doing fine and doesn't need help!	WET06
2242	Please do not allow any restoration work in Sax-Zim Bog. The bog is doing fine and doesn't need help!	WET06
3247	It is totally ridiculous to think that this project will end up any less than a disaster. Look at western Montana. Their streams are polluted forever – not just 500 years!	PD01
3247	It is totally ridiculous to think that this project will end up any less than a disaster. Look at western Montana. Their streams are polluted forever – not just 500 years!	PD01
<b>Sender Name (Submission ID)</b> Larry Krohn (39539)		
6301	after reading the ESS reports & all of the steps PolyMet has taken to ensure no water contamination, safe holding ponds & safe mining practices, I feel they have gone above & beyond!	PD28
6302	I am now in Full Support of this project, for jobs, MN growth, revenue, even a kickback will go to MN schools (Land Use Trust /PSF from the founding of MN 1858).	SO10
7871	... having read the documentation as outlined in the SDEIS, it is my professional opinion we can be assured the impacts to the air, water and land will be minimal, and most likely superior to the existing ecology.	LU07
7885	This SDEIS demonstrates PolyMet can develop this resource in a sustainable manner with logical, engineered solutions proposed for any potential impacts.	PD28
7890	PolyMet will generate millions of dollars in local and state taxes for the support of our communities and educational institutions. The result of this project will contribute to the state and local economy at this time when we need jobs and a sustainable economic growth.	SO10
7894	This project, using the existing infrastructure and land is the ultimate in recycling! I am impressed by the extraordinary precautions proposed by PolyMet such as proven reverse osmosis technology and look forward to having them in our community.	PD28
7895	I am confident the professional team assembled by PolyMet will provide financial assurance to cover all required closure costs.	FIN16
<b>Sender Name (Submission ID)</b> Larry OConnell (15302)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Larry OConnell (15302)		
436	I am convinced they have the technology, financial means, and moral intentions to properly operate safely the proposed mine!!	FIN16
437	the "Range" ... needs the economic input that Polymet will provide. The jobs that polymet provides are only the beginning of the job growth for this area. The housing market will benefit as well as retailand the list goes on	SO10
438	Polymet has in my opinion gone above and beyond ... to insure safe clean nontoxic mining. Besides the fact that they are willing to put money in an escrow account in case that any emergency may arise.	FIN16
<b>Sender Name (Submission ID)</b> Larry Penk (54128)		
16003	I do not support nor do I believe the review process has been sound.	NEPA09
<b>Sender Name (Submission ID)</b> Larry Popovich (7630)		
807	The money paid out in taxes and fees will support this treatment, along with millions of dollars for the communities and schools in our state. Let us not forget the jobs that will come with it, along with spin-off jobs resulting in mining; these communities desperately need help, as they have suffered with declines in many areas for years.	SO10
808	We have the perfect oppportunity to have a business come in to a brownfield site, prepare the site and do treatment on it for years to come.	PD28
<b>Sender Name (Submission ID)</b> larry ronning (40845)		
13987	We have heard of the problems with sulfates and there longterm affects on our watersheds. I have heard nothing of all the other chemicals that are required to extract metals from the tailings?...What other chemicals will be used and therefor added to our water!!	PD30, WR045, WR107, WR108
<b>Sender Name (Submission ID)</b> Larry Smith (37868)		
9113	PolyMet does not commit to the number of jobs available for local people.	SO04
9119	PolyMet fails to plan for inevitable accidents and failures – Pipeline spills, accidental releases, failure of water collection and treatment infrastructure and tailings basins failures are virtual certainties. There are no details in the PolyMet plan how to deal with these situations.	HAZ01
9128	Inadequate comment period - Please increase the length of the comment period for the SDEIS from 90 days to 180 days.	NEPA07
16367	...to do this type of mining here so near to the Boundary Water is risky at best. Why would we take a chance of permanently polluting this wonderful ecosystem?	WILD02
16368	It is virtually impossible to prevent seepage from the mine and tailings. Perhaps millions of gallons of seepage from tailings and the mine site itself will enter ground water without being treated.	WR070
16369	PolyMet admits that water pollution by sulfuric acid will last for at least 500 years. The Gutenberg printing press was invented 500 years ago. The United States of America is 238 years old. How can we possibly plan for pollution that will last over 500 years?	WR195

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Larry Smith (37868)		
16370	Those of us that have property on the area lakes will likely suffer decline in property values. We have planned retirement on White Iron Lake for 25 years and have recently built a new home here. Polluted waters will make our property and home undesirable. And the attraction of the Boundary Waters will decline.	WILD02
<b>Sender Name (Submission ID)</b> Larry Wannebo (37902)		
13772	The preponderance of evidence in the PolyMet case, both scientific and social evidence, proves that the vast majority of the informed citizens in Minnesota do not want to risk the long-term quality of their water and related eco-systems for a few hundred short-term jobs.	SO01
13773	Everything else discussed in this search for a solution is nothing but smoke to confuse the issue. If approved, PolyMet will be followed by applications for more exploitation of our natural resources in the name of jobs. This is the REAL cumulative impact of a PolyMet mine... We urge MDNR to deny the permit to mine and all of the other permits associated with this project.	PER35
<b>Sender Name (Submission ID)</b> Larry Werner (16197)		
9786	Short term jobs and profit generation versus long term environmental damage is not a good deal for Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Larry Zelenz (10724)		
589	I would suggest that Polymet be required to fund an independent group that includes representatives from the DNR, USFS, USACE, MPCA and citizens representing environmental groups with interest in the region acting jointly, to monitor the project on a full time basis in perpetuity.	FIN01
1484	...it seems to me that what may be critical is how effectively Polymet's performance is monitored with regard to the safeguards they intend to put in place. Woefully underfunded government agencies, constrained by bureaucracy with weak punitive powers may be ineffective in assuring that the stated standards are met. I would suggest that Polymet be required to fund an independent group that includes representatives from the DNR, USFS, USACE, MPCA and citizens representing environmental groups with interest in the region acting jointly, to monitor the project on a full time basis in perpetuity. This entity should have the power to curtail or shut down operations and have standing with regard to directing punitive measures if Polymet fails to meet stated environmental safeguards.	PER24
<b>Sender Name (Submission ID)</b> Larry-bob Roberts (43139)		
15857	The potential benefits in terms of a small number of jobs over a short range of time and extracted minerals versus the long-term impact of pollution is not worthwhile.	SO01
15858	I hope you will carefully examine the issues of whether the estimates of 90% of the water being captured are at all accurate and experimentally verifiable, or are just plugging in the required numbers to come to the desired result.	WR018
<b>Sender Name (Submission ID)</b> Laska Nygaard (43233)		
16133	There is no way to guarantee that PolyMet would complete 200 to 500 years of necessary cleanup. There is no way to be certain 200/500 years in the future the extent of the damages that would need to be assessed and addressed.	FIN01
16134	A national forest is intended to be protected. Treating it in a way such that it is harmed for ten to 50 generations puts unacceptable burdens on those generations....	WILD02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Laska Nygaard (43233)		
16135	Forcing 500 years' of Minnesotans to suffer for the decision of making money now over a period of a mere 20 years - ONE generation - is illogical.	SO01
16136	Money is good. I do not begrudge PolyMet it's wanting to make money. I begrudge it wanting to make money in such an inherently dangerous fashion, in an area of vulnerable environment, in an industry in which the history of cleanup is poor, such that states in which such mines exist/have existed before (and so suffer from pollution, particularly water pollution) have suffered from the pollution AND companies have failed to pay for and ensure the cleanups.	FIN01
16137	All cleanup costs - those for the 200 and 500 year durations - should be paid by PolyMet up front. If this is not feasible for PolyMet, then Polymet should understand that the plan is not feasible. Note in addition that the costs of clean up are often underestimated, particularly given the impossibility of knowing actual damages to be addressed and actual inflation 200/500 years in the future.	FIN01, FIN05
16139	Contractual obligations, laws and regulations to ensure environmental protection/clean up only go so far. We should not bet 500 years of our environmental quality of contractual, legal and regulatory provisions hopefully being met. This project is too big an too dangerous to approve it based on betting that we know all that could go wrong over 500 years.	GT14
<b>Sender Name (Submission ID)</b> Laura and Mr. Neal Deaton (40138)		
15306	he most precious and life-giving commodity that we have on the planet is water. No amount of rationalizing can prove that this proposed project will bring about more benefits than irreparable damage.S	GEN01
<b>Sender Name (Submission ID)</b> Laura B Melander (54740)		
18880	It will bring water pollution and tax payer cost.	WR037
<b>Sender Name (Submission ID)</b> Laura Berglund (44483)		
11295	Summitville Gold Mine, Colorado The company filed for bankruptcy, leaving cleanup costs to the public. Zortman Landusky Mine, Montana In 1998, the company abandoned the site and filed for bankruptcy. After several lawsuits against the mining company and its creditors following the company's bankruptcy, Montana's taxpayers are still liable for anywhere from \$8 million to \$90 million. Gilt Edge Mine, South Dakota The parent company, Dakota Mining, went bankrupt and abandoned the mine in 1999 with only a \$6 million bond in place, an amount insufficient to cover water treatment for even a single year. Please ensure that Minnesota taxpayers are not left with a similar burden as a result of the PolyMet project.	FIN01
11303	In order to adequately protect public health and provide adequate water treatment for mine runoff, it is absolutely critical to have accurate data regarding speed, quantity, and direction of water flow. Basing a water flow model on data gathered during one atypical year is neither responsible nor defensible. Without an accurate estimate of water flow, there is no way to provide for adequate water runoff treatment.	WR003, WR052, WR071, WR081, WR086, WR091
11329	Given the track record of smaller, similar mines elsewhere in the U.S., and the fact that the mining companies went bankrupt and left state taxpayers the bill for perpetual remediation and abatement, I am not confident that PolyMet will be able to meet its obligations under Minnesota law.	FIN01
12818	Nobody wants to wonder whether living downwind of a mine means having to breathe carcinogens. Air doesn't respect political boundaries like state lines or national borders....	AIR11

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Laura Berglund (44483)		
12828	I am particularly concerned about the public health effects of contaminants that will be generated by the PolyMet project. Sulfates, sulfides, mercury and methyl mercury, and asbestos fibers are not things I want in my groundwater or surface water, the air I breathe, or the food I eat.	HU03
<b>Sender Name (Submission ID)</b> Laura Carrero (30211)		
13856	It is my understanding that there is potential for contamination to occur for the next 500 years and I don't think it is realistic for us to believe we can prevent any water pollution from occurring over such a long period of time.	WR037, WR128
13857	I have read that PolyMet believes that it will have sufficient safeguards in place to prevent contamination; however, I do not have confidence that this the case.	FIN01
13858	I read that the jobs created by this project will last for 20 years. That seems great now but, if you look at the big picture, I do not believe it is worth the risk.	SO01
<b>Sender Name (Submission ID)</b> Laura Dahl Popkes (41069)		
13943	The very FACT that sulfide mining produces corrosive acid destruction to our lands and waters should be enough reason to say NO to PolyMet.	WR001, WR195
13944	eed, Birch Lake is clean and clear and, using only a modest filtration system, perfectly safe to drink. The fact that water contaminated by sulfide mining will require treatment for as many as 200 to 500 years makes it abundantly clear to me that only a few will 'benefit' from the economic ramifications of PolyMet's industry, but we ALL will pay the environment price	FIN01
<b>Sender Name (Submission ID)</b> Laura Gauger (57355)		
18436	If a mine as small as the Flambeau Mine, promoted as a state-of-the art model mine and designated as successfully reclaimed could cause this much groundwater pollution, what will happen at the much larger mine proposed by PolyMet for Minnesota's Arrowhead Region?	WR023
<b>Sender Name (Submission ID)</b> Laura Grangaard (15993)		
13779	It just seems so shortsighted to cause such an enormous blight on such an amazing resource for the short-term good of a relative few.	SO01
13780	Trusting a company to provide cleanup for the next hundreds of years is tenuous at best. Economic growth is important to consider, but at what expense over the next short term period of time (20 years seems to be the popular number), when that expense could impact us far beyond what we can see?	FIN01
<b>Sender Name (Submission ID)</b> Laura Hedlund (43850)		
11861	How can we with open eyes and a full heart even consider something SO RECKLESS as the polymet proposal which will pollute for more than 500 years?	PD01
11862	The pollution from the polymet proposal is likely to impact fishing and hunting rights - the true sustainable economy.	LU06
14944	The need for jobs is based on economic system which we can change. ... We do not have to sacrifice our environment for temporary and PERCEIVED economy gains. Let's start doing the hard work to fight for a just working economic system.	SO01

*Alphabetical by sender's first name*

**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)**    Laura L. Hagen (45686)

- 13019 Economically, the PolyMet mining would create many jobs for local citizens. This is an incredibly valuable reason to establish the mining operation. Citizens of Northern Minnesota need jobs and there would be \$332 million made per year from the extracted minerals. Although these are significant short-term benefits they are outweighed by the long-term costs.    SO01
- 13025 NorthMet mine operation should not be built in Superior National Forest. Consider more alternatives. Is there a site around the same area that would not affect Lake Superior or other water bodies? An underground mine may have less impact on the streams and rivers and would preserve the natural wetlands.    ALT01
- 15928 First, the amount of wetlands that would be destroyed is incredibly significant and would affect the organisms that inhabit them.    WET24
- 15929 Many species such as the lynx, bald eagle, gray wolf, eastern heather vole, wood turtle, yellow rail and many more could be affected by the mining.    WI01
- 15930 Aquatic organisms that find their home in the streams and rivers connected to the wetland would most likely be adversely affected with the change in streamflow, loss of connectivity of the streams and the poor water quality.    AQ05, AQ24
- 15931 Another concern is the affect on the water quality in the area. There are already high levels of mercury in fish tissue without mining operations. The copper-nickel is locked in to the rock with sulfides. When sulfide comes into contact with oxygen, it produces sulfuric acid and releases soluble metals including mercury, iron, copper and nickel. This would increase the already high levels of mercury in the water.    WR001
- 15932 I am mainly concerned with the effects that the copper-nickel mining would have on wildlife habitat, native species of the area, nature of the land, and water quality.    WI01, WI02

**Sender Name (Submission ID)**    Laura Millberg (40882)

- 13960 Economic development that threatens tourism and many of our natural resources is not a good decision for the state of MN.    SO02

**Sender Name (Submission ID)**    Laura Platcek (40095)

- 6456 1) Redo the GoldSim water model using assumptions based on adequate and accurate field data2) Gather field data to fix gaps in flow data for the Partridge River near Dunka Road, as suggested in the DNR memo written by Greg Kruse on December 17, 20133) Recalculate and rewrite sections of the SDEIS based on the GoldSim water model predictions, including water quality, water quantity, post-closure maintenance, and financial assurance4) Redo the GoldSim water model to account for seasonal variations in base flow and soil conductivity    WR003, WR058, WR065, WR071, WR091, WR189

**Sender Name (Submission ID)**    Laura Salyards-Fryberger Mullen (57271)

- 17413 Dislike anything that requires 500 years of environmental cleanup for not many MN jobs over not many years by comparison    SO01
- 17414 Also think that human ingenuity will find a better way to mine Minnesota’s copper in the future that will be better for all – Protect our water please .    PD32, WR195

**Sender Name (Submission ID)**    Laura Smith (48377)

- 12893 We can't allow bad assumptions in something this important to our environment or economy.    GEN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Laura Stramer (58153)		
19891	100% of sulfide mining operations in the U.S. have violated water quality standards and are currently the costliest to the U.S. Taxpayer of all superfund liability, estimated by the EPA at between 20-54 billion dollars.	PD26
19898	according to Federal Land Management policy, National Forest Management policy, and National Environmental policy, full consultation with affected sovereign tribal governments is required for consensus on matters concerning tribal nations.	CR06
19927	I oppose the permanent loss of our water quality in the most important fresh water resource on the planet, The Great Lakes. This project would impact Lake Superior, the largest fresh water lake in the world by surface area, and impact the St. Louis River watershed, its largest tributary and home to multiple species of fish.	GT01
19989	The PolyMet mine and tailings would also increase mercury levels in the downstream reservation waters of the du Lac nation and places where the Grand Portage people fish.	MERC24
19992	The PolyMet open pit mine would interfere with...treaty rights by ceding surface rights of tribal lands into corporate hands and polluting tribal lands and waters of the Anishinaabe.	CR01
20013	This mine would destroy more than 1300 acres of high value wetlands and convert more than 6,650 acres of what are now public and tribal lands to private mining company property. Drinking water would be subject to toxic levels of mercury, arsenic and manganese. The mine would produce high concentrations of sulfuric acid and result in acid mine drainage, leeching chemicals out of rock which are toxic to water, ecosystems and toxic to wild rice.	GEN03
<b>Sender Name (Submission ID)</b> Laura Wolden (46192)		
8838	Minnesotans are in opposition to this mining project because it will damage the very important and limited public resource of water	WR195
10491	This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Laura-Christina Cobb (26314)		
10450	PolyMet's open pit sulfide mine: it promises to ruin this extraordinary natural area.	WILD02
<b>Sender Name (Submission ID)</b> Laureen Guyer (16567)		
13922	The mines PolyMet proposes are not conducive to [a clean environment and would impact the air we breathe, the water we drink, the foods we grow, and the fish and game animals who thrive here].	GEN01
16301	There is nothing more important or precious to living things than a clean environment. Minnesota's forests and farmland are important not only to those of us who live and work here, they are important to our country, indeed the world, to provide wild places to visit and oxygen to the atmosphere. The mines PolyMet proposes are not conducive to any of the above.	GEN03
<b>Sender Name (Submission ID)</b> Laurel Hyvonen (11565)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Laurel Hyvonen (11565)		
1238	As a citizen and human being dedicated to the health and well being of sustaining life not only in my community, but on the planet I am strongly opposed to the projected plan. It is time to wake up to a value system that is not centered around the American dollar as a means of attaining health, wealth, and happiness.	SO02
1238	As a citizen and human being dedicated to the health and well being of sustaining life not only in my community, but on the planet I am strongly opposed to the projected plan. It is time to wake up to a value system that is not centered around the American dollar as a means of attaining health, wealth, and happiness.	SO02
<b>Sender Name (Submission ID)</b> Lauren Lederle (9606)		
1136	The polymet mine risks the safety of drinking water for northern parts of the state indefinitely.	WR042, WR115
<b>Sender Name (Submission ID)</b> Lauren Satterlee (41007)		
7463	We must protect its [Northern Minnesota's] integrity from contamination that may take hundreds of years to reverse, if it is possible to reverse at all.	FIN05, FIN08
7468	The backbone of Northern Minnesota's beauty and economy is the integrity of its environment.	SO02
13932	The backbone of Northern Minnesota's beauty and economy is the integrity of its environment. We must protect its integrity from contamination that may take hundreds of years to reverse, if it is possible to reverse at all.	FIN05, FIN08
16970	We must protect its integrity from contamination that may take hundreds of years to reverse, if it is possible to reverse at all.	SO01
<b>Sender Name (Submission ID)</b> Laurence Risser (39815)		
6361	For 350 jobs we are willing to sell the environmental integrity of the BWCA.	SO01
<b>Sender Name (Submission ID)</b> Laurentian Chamber of Commerce (54763)		
19240	the metals that PolyMet will mine are essential for daily life - copper, nickel, cobalt, platinum, palladium and gold - found in countless products including: medical treatments, joint replacements, cell phones, computers, wind turbines and catalytic converters	PD28
19241	the combination of strict Minnesota regulations and PolyMet's commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices	PER34
19242	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone and WHEREAS, it is anticipated that the PolyMet Mining project will require two million hours of labor during its construction phase and WHEREAS, PolyMet Mining will contribute millions of dollars to local cities, school districts and the State of Minnesota through net proceed taxes, occupation taxes, and sales tax	SO10
19243	it is stated within the Minnesota Department of Natural Resources, United States Army Corps of Engineers, and the United States Forest Service's supplemental draft environmental impact statement (SDEIS) document, "The SDEIS has thoroughly evaluated water quality impacts, and has shown the project will not cause an exceedance of aquatic life water quality standards."	WR190

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Laurice Jamieson (47431)

17590 I have serious concerns about the inadequate Financial assurance and the careless disregard for potential disastrous environmental effects. ...Legislator Kahn has brought up the need for a third party insurer. FIN01, FIN08

17591 The proposal is sorely lacking in [discussion of financial assurances and potential disastrous environmental effects], it's inadequacies are dangerous. Please do not proceed with such a poorly thought out proposal. You owe further examination of these issues to the citizens of Minnesota PER03

**Sender Name (Submission ID)**    Laurie Bailey (42715)

14330 We're talking about 300 jobs for 20 years with ~500 years (or more?) of water treatment required. Based on the water samples taken at PolyMet's model mine site, we should expect that not all water contamination will be prevented. It is absurd -- short term benefits for some, with very long term consequences for many, many more. SO01

14331 it is not fair to push this cost on to future generations. Our kids and their kids and their kids...will pay for centuries to come, or the water will go untreated. Neither is acceptable. GEN01

14332 Taxpayers in other states are paying millions of dollars to clean up streams and rivers at other copper mining sites across the country. FIN10

**Sender Name (Submission ID)**    Lawrence A Martin (54486)

18006 Although the economic conditions of NorthEast Minnesota merit attention and support from all Minnesotans, those needs are not well addressed by the proposed mine, which will generate a very modest number of good paying jobs at the expense of its natural resources in creating a Sudbury-type area of desolation. SO01

18007 Incomplete/Inadequate Plans For Handling Reverse Osmosis Brine.(...) The reverse osmosis technology has not been demonstrated to be capable of handling the magnitude or duration of the treatment required to handle the waste dump. In particular, the reverse osmosis process will generate a brine from its operation. The current Supplemental Draft Environmental Impact Statement for the Poly Met North Met sulfide mine appears to dismiss concerns about the disposal of the brine, without quantifying the amount of the brine over time, by indicating that it would be transported offsite, to an undisclosed location, using an undisclosed method of transportation, to that presumably contract disposal facility. WR143, WR145

18009 Ill-Suited Location for Sulfide Mining. (...) Sulfide mining appears to be viable in dry areas such as Arizona, but the exposure as proposed of the bedrock bearing dispersed low quantities of ore to air and to the abundant surface and ground water of NorthEast Minnesota can only be accomplished with technologies that are currently undeveloped or, if developed, have never been utilized to handle the size of the proposed project and the duration of the pollution threat already documented. PD26

**Sender Name (Submission ID)**    Lawrence Aho (54718)

18513 We have trusted the DNR and the MPCA thus far to keep our water and air clean. I don't understand why we don't trust them now. I understand that this is a new type of mining but I believe that it has been thoroughly checked out. We need new industry on the Mesabi and Vermilion Iron Ranges that keeps the environment safe. The roadblocks that we have put on Polymet Mining and other nonferrous mining companies I believe have gone overboard. PER34

**Sender Name (Submission ID)**    Lawrence Eisinger (42500)

7373 What assurance can this company give us for the next 500 years that water in 3 different watersheds will be safe for the next 500 years? WR035

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Lawrence F Eisinger (42864)		
8887	What assurance can [PolyMet] give us for the next 500 years that water in 3 different water sheds will be safe for the next 500 years? We have an absolute moral obligation to protect our state's and community's and neighboring county's most precious resource- WATER. We need to protect this natural resource for our children, grandchildren, and great grandchildren and those for the next 7 generations.	WR071, WR058
8887	What assurance can [PolyMet] give us for the next 500 years that water in 3 different water sheds will be safe for the next 500 years? We have an absolute moral obligation to protect our state's and community's and neighboring county's most precious resource- WATER. We need to protect this natural resource for our children, grandchildren, and great grandchildren and those for the next 7 generations.	FIN01, WR035, WR195
<b>Sender Name (Submission ID)</b> Lawrence L Johnson (11572)		
7702	Please ... deny a Section 404 permit for the PolyMet project. Section 404 of the Clean Water Act provides protection of wetlands that are integral and essential for the protection of our aquifers that supply our ground waters for municipal water supplies and private wells.	COE03
7702	Please ... deny a Section 404 permit for the PolyMet project. Section 404 of the Clean Water Act provides protection of wetlands that are integral and essential for the protection of our aquifers that supply our ground waters for municipal water supplies and private wells.	COE03
<b>Sender Name (Submission ID)</b> Lawrence Morgan (58025)		
19838	this toxic mine would take our minerals for export and leave the rest of us with the financial burden	FIN01
<b>Sender Name (Submission ID)</b> Lawrence Spears (57609)		
19369	The sulfur pollution is long-term and devastating to the environment.	AQ28
19370	The promised mining jobs are few, short-term and phantom. The copper extracted is very small. The benefits to Minnesota will be minimal.	SO01
19371	The mining company is likely to disappear in bankruptcy leaving no protection against the long-term environmental destruction.	FIN01
19372	There is no demonstrated significant national resource interest in this mining in Minnesota.	GEN03
<b>Sender Name (Submission ID)</b> Lawrence Thompson (11894)		
38	More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering.	WET24
39	The Supplemental Draft Environmental Impact Statement (SDEIS) proposes NO mitigation for the indirect wetland impacts.	WET01
40	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will damage the aquatic organisms and habitats downstream to Lake Superior.	AQ05
41	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed:BLACK-BACKED WOODPECKER, SPRUCE GROUSE, NORTHERN GOSHAWK AND BOREAL OWL.	WI01, WI02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> LBO (3638)		
8001	Your job is to protect MN's natural resources. In this state, clean water & air are your main jobs.	AIR11
8003	The mining proposed in Northeast MN will almost certainly pollute our water- likely for 500 years. This must not happen.	WR115, WR195
8005	The minerals aren't going anywhere, let us wait to extract them when it can be done with No harm to our clean environment.	SO02
<b>Sender Name (Submission ID)</b> Leah Robshaw (20202)		
1785	I am thankful that the USFS does not believe that the mineral estate gives PolyMet the right to surface mine NFS land to access the minerals below. I believe national lands should be used to support the long term interests of the plants, animals and people of the United States. The proposed Copper-Nickel mine does not achieve this goal.	LAN02
1787	I am concerned about the destruction of wetland habitat within the Embarrass River and Partridge River watersheds which will disrupt the plants and animals who live there.	WET24
1789	I am also extremely wary of the so called financial assurances that PolyMet would set aside to mitigate futher environmental destruction. The amount of funds needed to clean up a mine site and/or prevent intense pollution is not a known amount.	FIN05
<b>Sender Name (Submission ID)</b> Leah Rogne (43366)		
11756	I do not believe that the risk to the environment, particularly to the water in the region, is justified. ... The natural resources in this region are too precious and the health of humans and animals too much at risk.	HU03, WR195
15574	I have not seen evidence that the company has the capacity to monitor and remediate the problems that are expected to occur for centuries to come.	PD23
<b>Sender Name (Submission ID)</b> Leah Stroup (41559)		
6353	Please do not ruin this treasure all for just a short term goal	SO01
<b>Sender Name (Submission ID)</b> Lee Ann Landstrom (16124)		
11065	I am tired of the environment and the FUTURE being compromised in the name of current JOBS.	SO02
15342	I'm tired of permanently destroying & poisoning the environment in the name of JOBS.	GEN01
<b>Sender Name (Submission ID)</b> Lee Beaty (48019)		
12081	The most important resource on earth is WATER. We need clean water to survive. It is also the "crown jewel" of our state. Do not allow anything to jeopardize our most precious resource.	WR195
12085	We must think in terms of the long-run, not the short-sited monetary gains which will help only a small handful of MN residents for a short while. And then "poof" we'll be left with devastation on many fronts: our land, our pristine water, our tourism industry (long-term income), and our great Northern Sanctuary.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Lee George Aide (44083)		
7742	I am requesting that the PolyMet Mining Project be stopped because of the great environmental cost.	SO02
<b>Sender Name (Submission ID)</b> lee k anderson (4367)		
1826	The 300 or 400 good paying jobs for 20 years is a terrible trade for long term pollution exposure we face.	SO01
1909	The Range needs to realize that it's major resource is the adventure people have in visiting the Wilderness and not another Pit.	LU06
1910	the world does not need any more copper and other metal that will be recovered.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Lee Kaplan (48708)		
12816	Despite their repeated insistence that mining has been done safely in Minnesota for years .. they are doing everything they can to bypass these regulations with a completely untested technology that is nothing like the mining practices that have been used in the state before.	PD32, WR023
16772	This technology threatens our water supply..While sulfide mining has never been tried in Minnesota, its history in other parts of the country is clear -- acid mining byproducts and heavy metal contamination have polluted waters in all other places where sulfide ore mining techniques have been used.	WR023
<b>Sender Name (Submission ID)</b> Lee Keeley (16179)		
9754	Thy tout JOBS. They plan under 400 jobs. A large percentage of those will be management and administration personnel from other areas.	SO02
11472	What is the track record for Poly[m]jet ? What is the track record of this Swiss company that owns them ?	PD23
11475	This is a planned DUMP on current and future generations of taxpayer...I'll guess the net jobs for a few years would not be close to the cost to taxpayer output for ongoing hundreds of years.	FIN10
<b>Sender Name (Submission ID)</b> Lee Schatschneider (616)		
37	the future costs of mitigation seem WAY undervalued and are so far in the future	FIN11
<b>Sender Name (Submission ID)</b> Leh Leh Win (54235)		
16812	The map on the PolyMet Mine set is wrong. The map mislead the public so they don't know about how dangerous it can be and their children lives. They need to fix the map and give people the right information.	PD38
<b>Sender Name (Submission ID)</b> Leila Jindeel (52398)		
13220	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Len & Mimi Jennings (21834)		
9555	The proposed Poly Met mine should not go forward because the SDEIS, which is seriously flawed, has not shown that mining of precious metals in rocks with sulfide can be done safely in this environment, without serious water contamination and destruction to wetlands and habitat.	PD01
9556	Recent DNR documents agree that the water flow model of the current SDEIS is inaccurate. This calls into question many of the forecasted impacts to water quality, wetlands, and rare habitats. With more water moving through the site, polluted water from pits and waste rock will more easily and quickly reach lakes and rivers. It is thus likely that more area will be polluted, and that the pollution will be greater than anticipated.	WR003, WR165
9583	The SDEIS seriously underestimates the destruction of wetlands, and has an almost “fantastical” proposal for mitigation. The size of the potential wetland destruction (up to 6000 acres) is breathtaking. Much of the modeling was based on inaccurate water flows, so more wetlands would likely be destroyed.	WET04, WET07
9603	[B]ogs and coniferous swamps which will be affected, are extremely difficult to restore. Do we actually know it can be done?	WET05
9605	[T]he land swap is not a swap of equal value.	LAN03
9606	Habitat destruction is also not adequately addressed. In addition to the issue of more water flow than expected destroying more wetlands than expected, the number of trucks going back and forth, the 24/7 noise and vibrations of running the plant and the mine will disrupt habitat.	WI02, WI05
9608	The assumed performance of water capture systems in the SDEIS is of 90% or greater. This high level of performance is not realistic. Engineering controls include the seepage capture system at the flotation tailings basin, the cap and liner system and the hydrometallurgical tailings basin, and the discharge control feature for the west pit lake. Failure or under-performance of any of these features will result in water quality impacts that are not described in the SDEIS.	WR018, WR129
9610	How can we know we can treat polluted water for several hundreds of years, let alone into “perpetuity”? Think of how much change occurs in our lives in just 50 years, let alone 500! The assumption that human constructed water capture and treatment facilities will last 100 years is not believable. Do we seriously think Poly Met is going to be around 300, or 500 years from now?	WR037, WR129
9613	False Assumption: We’ve studied this for so long that we know enough and should just get going. Actually, the opposite is true. If Poly Met were able to mine without problems, their project would have been approved years ago.	NEPA15
<b>Sender Name (Submission ID)</b> Len Anderson (19512)		
13246	Cumulative impact is mandated by NEPA, and I think the attempts at cumulative impact were not adequate to what NEPA policy demands.	CU14
13258	Cumulative impact for sulfate and methylation of mercury I think is one of the biggest weaknesses of the document. The cumulative impact is calculated and discussed for the Partridge River and the Embarrass River and then stops at the mouth of each of those rivers, and it appears that the authors think that the movement of sulfate stops at the mouth of those rivers, but in fact, it continues all the way down the St. Louis River to the estuary, and the modeling for cumulative impact of sulfate on methylation of mercury needs to be done all the way down to the estuary.	MERC10
13259	[The St. Louis River] is listed under 303(D) of the Clean Water Act as impaired from mercury, and our children are being born with dangerous levels of mercury in their cord blood. There is no TMDL yet for the St. Louis River, even though it has been a work in progress for 16 years.	MERC22
13260	The MPCA said in February of 2013 that we do not know enough to do a mercury TMDL for this watershed, but now as I read the SDEIS, they claim that we know enough about mercury in this watershed to permit this mine which will be generating mercury and sulfate.	MERC22

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Len Anderson (19512)		
13262	The mercury TMDL is scheduled for the Embarrass chain of lakes for 2015. If permitting cannot wait, if we have to permit it now, then the adaptive water management plan has to be changed so that it can accommodate recommendation from those TMDLs.	MERC22
13263	Cumulative mercury impacts were addressed in the EIS but there was no accommodation made for the recommendations that would come out of the TMDLs, and that change has to be made in the adaptive water management plan.	MERC22
13264	A permit must not grandfather in mercury and sulfate releases that then compromise those TMDLs.	PER10, PER11
13267	The State of Minnesota Legislature allocated funding for two years of study of sulfate impact on wild rice. Those two years are coming to an end now. The Wild Rice Research Team will be doing a review of study results and preliminary recommendation from the last two years of research in the spring of 2014. ... Sometime this spring, we should get those results, and our 90 days are going to be up. So I am asking for an extension of the comment period, and I'm just giving that one example of additional research that is coming...after the comment period is over.	NEPA07, WR164
<b>Sender Name (Submission ID)</b> Len Jennings (40091)		
6455	Conduct a health impact assessment for the PolyMet project, and include the results of the assessment in the EIS. The HIA should include examination of all aspects of public health affected by the proposal, including analysis of the social determinants of health.	HU01
13633	How will this company guarantee our lakes and waters for the next 500 years?	FIN01
<b>Sender Name (Submission ID)</b> Lena K Gardner (58099)		
19920	I believe that it is an error to base a decision that will have such big impacts on a flawed water study. I encourage the MNDNR to consider the impacts of long term pollution.	NEPA14, SO01
19972	That cost isn't worth the short-term employment gains, especially at a time when the company PolyMet is showing signs of economic instability and historically when mining companies go bankrupt.	SO01
<b>Sender Name (Submission ID)</b> Leo Babeu (42517)		
2429	Compiling 2169 pages of text, figures and references is no assurance that this document has adequately addressed what will happen over the operation or aftermath of this mine.	NEPA07
2643	That process [of forming sulfuric acid] is very tough to manage once underway, and that is the source of the concern over the likely disturbance of aquatic systems and the water quality and health effects some of us think are paramount in looking at this mine's impacts 20, 50, and hundreds of years from today.	WR001
2644	Water quality problems [from the Project would] extend way beyond the site of the mine and plant.	WR111
2648	On pages 2049-2050 of the new Polymet SDEIS, the Tribal Cooperating Agencies Cumulative Effects analysis points out multiple discrepancies that make the case that the Goldsim model can't accurately predict existing conditions, and so cannot be relied upon to predict future project conditions.	WR044, WR045, WR047, WR048, WR115, WR195
2649	We can attempt to intervene, to have active post-closure treatment, but how successfully, at what cost and for how long are questions largely left unclear despite all the words we've dedicated to this project.	FIN05, FIN01, FIN10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Leo Babeu (42517)	
2650	The present interactions of environmental conditions producing methylmercury in the key Lake superior tributaries like the St. Louis R. must be much better understood, and yet the SDEIS asserts that the NorthMet Project Proposed Action would not exceed applicable environmental evaluation criteria.	MERC19
2652	It would be a public service if someone would direct me to the SDEIS page or Polymet process publication that demonstrates and verifies that 20 years of intense mining and the modest benefits that it shares with our local economy will not be prelude to twenty generations of a tainted water legacy.	SO01
3737	Once built and operated at full-scale and closed to active mining, there is no standard, permit condition, corporate or individual's good faith effort that can pre-empt the physical chemical cascade of events that acid mine drainage brings.	WR001, WR070, WR090, WR115
6720	The discharged sulfate and metals will be in stream water in the Partridge, and St.Louis rivers, eventually reaching the Great Lake to which they flow... There are concerns for nearby drinking water supplies like Colby Lake.	WR043, WR111
6721	There may well be impacts to ground water from seepage through the lined waste piles and substrate. And there may be run-off into surrounding wetlands.	WR126
6722	The discharged sulfate and metals...And there may be run-off into surrounding wetlands	WET24
6724	Elevated arsenic and other metals could present serious risks to human health, while increasing the already higher levels of sulfate in the St. Louis watershed will harm our wild rice beds and very possibly increase the formation of toxic methylmercury, which accumulates in the food web.	PD01, VEG04, VEG06, WR001, WR004, WR071, WR139, WR185
6726	Two years ago, the MDH found alarmingly elevated levels of mercury in the blood of 10% of infants living near Lake Superior. Methylmercury, the form our bodies accumulate is produce in the water sediment interface of rivers like the St. Louis by microbes. Increasing levels of sulfates leads to increased production of methylmercury.	MERC03
6920	Given that at least 30% of Minnesotans have very poor internet service, i.e. no broadband, the process of reviewing and responding to the SDEIS is a greater burden for many outside the Metro areas. I am very disappointed in the co-lead agencies' resistance to extending the comment period, and the holding of the three public hearing so soon after the release of the SDEIS.	NEPA07
6934	What are the metrics and feedback built into the next stage of environmental review that could give weight to public perception of future mine related externalized financial and environmental costs, such that additional supporting materials should be made public, or further studies and revision and ground-truthing of models required?	FIN08
6942	A realistic review needs to consider the risk/benefit factors applicable to the complex systems required to align and perform as described over a 200-500 year post mine period....	SO04
6960	The assessment of exposures and risks from fiber (amphibole, asbestos-like) emissions from blasting and from crushing, transport and disposal of rock and tailings must be better quantified.....This evaluation of health risk is essential for area residents, and mine employees in particular.	AIR03
6965	The XP-SWMM model underestimates surface water flow hydrology at the mine site for predicting base flow in the Partridge River catchment. ... The GoldSim tool doesn't predict baseline concentrations of various parameters in both the Embarrass and the Partridge Rivers	WR003, WR044, WR045, WR049, WR165

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<b>Sender Name (Submission ID)</b>	Leo Babeu (42517)	
6970	the release, distribution, metabolism, and ecological fate of mercury in the wetlands, ground water, and surface waters that include not just the Partridge and Embarrass rivers, but also the St. Louis (which has a TMDL for Hg) and the Lake Superior Basin is not addressed to most observers' satisfaction.	MERC19
6994	The SDEIS does not address the loss of and degradation to critical moose habitat, or the likely dramatic impact on moose migration and life stages from the actual mine area industrial disturbances. ... A similar issue exists regarding assessment of impacts to lynx.	WI01, WI02, WI03
6999	The wetland destruction and replacement proposed in this SDEIS and the USACE 404 Plan may meet technical legal requirements. However, ecological functions of the large, intact, and unique boreal wetland to be destroyed at the mine site will not be replaced.....The USFS-Polymet land exchange provides for new national forest lands purchased in isolated patches that don't simulate the current intact block of large forested wetland.	COE03
7005	Specific analysis of the economic costs that should be weighed alongside the projected economic income and revenue the to public treasury which this project brings. Are opportunity costs addressed? Are the prospects considered, and quantitative estimates made, of the degree to which new heavy industrial zone activities that this and future sulfide-copper-nickel mines require will reduce investment opportunities for "green" tourism, recreation ,or other less landscape- intensive and more long-lived, sustainable businesses?	SO04
7016	Future environmental assessments should consider whether a more sustainable option should be first evaluated, that being the value-added domestic recycling of such commonly used metals as copper and nickel.	NEPA06
15446	First off I must urge you to give you citizens more time to digest, discuss, research and respond intelligently to this mountain of technicality. Ninety days to comment and three hearings held within the the first seven weeks of the SDEIS release is not enough.	NEPA07
15447	Studying the past performance and the scope of past problems resulting from comparable mines may prove to better predictors of what to expect from copper nickel mines in sulfide ore bodies. This is crucial for those of us who understand that our region's future water, air, wildlife and human communities will be affected by not only this mine but by the cumulative impacts of the mining district some leaders envision for the Duluth Complex.	CU04, PD26
15448	We have no adequate local prototype of the mining and mineral extraction step from which to study all the waste handling and subsequent mine drainage and water treatment factors that will play out over time. The reason for all the concern is the sheer volume of what we are challenging our very fallible human business and engineering capacity to manage in just this one mie: over 400 billion pounds of ore, and 800 billion pounds of waste rock. Over a trillion pounds of material removed, NOT INCLUDING surface vegetation and soil. If the ore alone has just 1% elemental sulfur by weight, there would be over 2 million tons of sulfur disturbed (without considering the waste rock) and moved from its stable underground state to processing and storage on the surface where it is highly susceptible to oxidation by air water and microbial action to form sulfuric acid.	HAZ01, PD30
15450	The SDEIS considers these concens in a time frame that is longer than our country has existed. Clearly, we need modeling tools for water flow and acid mine drainage generation for more than the short run. Ideally, we'd create and use a valid predictor to track concentrations and volumes and distribution of possible contaminants on site and in the receiving streams and other hydrologic compartments like wetlands and ground water. We would need to apply this model to the hundreds of acres of process facilities and waste stockpiles and run those projections out for centuries after the mine is closed and the active treatment facilities are closed.	WR189

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Leo Babeu (42517)	
15451	The original 2009 DEIS was judged inadequate because it showed that the project will exceed water quality standards because of discharges during the life of mining and long-term, including the post-closure period. Any conclusion in the new SDEIS that the project is acceptable has to be based on improvements in proposed waste handling, treatment, and prevention of acid mine drainage generation. The effectiveness of those modifications would then need to be verified through the predictions of models that can be tested and validated against known conditions.	WR021
15461	We know that our existing iron mines in non-sulfide ore bodies have already created water quality problems that include wild rice dead zones, and mercury levels of concern. Without conclusive evidence to the contrary, we have to look to the past performance of similar mines and scope of pollution problems that the discharges from existing and past mines in sulfide ore bodies have created.	WR158
15463	On page 2064 The Tribal Cooperative Agencies point out that a lack of scientific information is explicitly stated throughout the PSDEIS and is what led the Minnesota Pollution Control Agency (MPCA) early this year to delay the establishment of a St. Louis River TMDL until further mercury cycling data could be collected. I'm left to conclude that the science isn't there to say that this mine is fine or in the end any safer in our water rich environment than previous sulfide ore body mines, even if you can find scientists who publicly assert that it does.	MERC22
16111	I do not mean to say that any lead agency's employees willfully produced an overly optimistic or inadequate document, rather that a host of factors led to a collective process and product that portrays an unprecedented project and proponent, whose outcome is fraught with risk and uncertainty, as technically and ecologically tenable for the proposed project area.	NEPA15
16113	How will you weigh the validity of those most frequently and intensely expressed concerns as you move forward? Reliance on reference in the thematic responses to the section and page where an issue is addressed becomes, at some threshold of expressed public concern, an insufficient response to a broadly perceived weakness in the evaluation of the project. What are the metrics and feedback built into the next stage of environmental review that could give weight to public perception of future mine related externalized financial and environmental costs, such that additional supporting materials should be made public, or further studies and revision and ground-truthing of models required?	NEPA11
16114	all the quantitative analysis, modeling, and efforts to reconcile the mining operations and post-closure activities with appropriate regulatory frames, are actually not contingencies that the co-lead agencies can know or anticipate with any confidence in evaluating the project. It calls into question the point of the review, since all terms of the analysis that the co-lead agencies have labored over for years are subject to arbitrary revision by the proponent at any time. Is there any provision for re-opening of the impact statement process should such changes in plan affect the input data for any of a number of predictions or other assumptions that lead to the current SDEIS conclusions?	NEPA15
16119	The risk of an increase in arsenic levels in the Colby Lake drinking water supply for Hoyt Lakes is remarkable and demands analysis of the costs and steps adequate to prevent such damage to the public resource and risk to public health.	HU01
16120	Does the document consider volatilization of mercury from blasting or from aqueous flotation processing media or heat stages like autoclaving? The directing of mercury releases away from adjacent water systems may lead to mercury increases elsewhere in the air shed that must be accounted for.	MERC16, MERC17
16121	methylation of mercury all the way downstream to Lake Superior is given inadequate consideration, largely based on a conclusion that sulfate levels will not exceed standards during operations or post-closure.	MERC19
16122	a lack of scientific information is explicitly stated throughout the SDEIS and is what led the Minnesota Pollution Control Agency in 2013 to delay the establishment of a St. Louis River TMDL for mercury until further mercury cycling data could be collected. This conservative approach would seem to be warrant for review and permitting of the NorthMet Mine.	MERC04, MERC22

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Leo Babeu (42517)	
16123	A high number of water quality-dependent wild rice beds that may be affected from the main stem of the St. Louis all the way up to the already sulfate-impaired (regardless of technical distinction) sections of the Embarrass River. That prospect should require the SDEIS to be expanded to address the concerns relevant under the provisions applicable in the 1854 treaty ceded territory.	CU01
16124	The impact to cultural and historical assets of the Ojibway bands will be far more substantial than the document anticipates. Legal action in pursuit of the tribes' interests will almost certainly be necessary to seek sufficient attention to these constitutionally secured interests.	SO02
16125	The SDEIS does not use an adequate method to assess surface and ground water hydrology disruptions surrounding the mine, nor does it reference data adequate to developing a better analysis such as the cooperating agencies have encouraged to be done.	WR007, WR008, WR071, WR086, WR093
16597	I want to see considerably more analysis of the details of the greenhouse gas emissions impact of all the activities, from electrical to mechanical to long-term treatment systems of the 200 plus year horizon of all activities related to the project.	AIR01
16599	I would like to see better details and more complete impact analysis on the health risks from the following: fugitive air emissions of dust and asbestos-like fibers, the exposure profiles for workers and residents of the area... evaluation of the cancer risk from the exposures to fibers, dust, nickel, and other contaminants expected to arise from the mine activity. ... the risk to drinking water from priority pollutants like arsenic and other minerals (e.g. manganese), both in local surface waters such as Colby Lake, and in ground water susceptible to mine and waste rock pad and tailings pond leaks and seepage ... the risk of both new sources of mercury and the prospects for increased mobilization of mercury already in the receiving waters, e.g. the Embarrass River, the Partridge River, the St. Louis River, and the Lake Superior Basin. That mobilization can be expected to involve both increased methylation of historical loads of mercury and new mercury inputs, as well as bioaccumulation by migrating and resident fish species.	HU02
16600	I would like to have the authors justify the use of active treatment processes for resolving potential contamination over the 200-500 year horizon. This is in direct conflict with stated statutory provisions for permitting a mine project.	PD02
16601	I object to the replacement of intact functioning wetlands with less diverse and healthy wetlands within the watershed and find the replacement of over 2/3 of the acreage of wetlands outside the Lake Superior basin to be of very low functional ecological benefit. Additionally, the 5,000 plus acres that will be indirectly impacted by redirection of ground water and other impacts are not subject to replacement or a mitigation plan in the SDEIS.	WET03, WET05
16602	The land exchange with USFS provides fragmented tracts, does not maintain the value of public assets, gives us public land with severed mineral rights and thus poor protections, and comes nowhere near replacing the ecological functions lost in the St. Louis River Watershed.	LAN04, LAN07
16603	I find the use of a water quality model that can't predict current WQ parameters to be highly problematic. Please beef up and redo the application of the GoldSim if necessary.	WR049
16604	Accurate groundwater flow rates are crucial to realistically predict pollution and seepage from PolyMet's mine pits and waste rock piles to the Partridge River. As I understand it, the XPSWMM model underestimates by at least three-fold the volume and rate of flow across the relevant site terrain.	WR086
16605	Please amend the SDEIS to adequately enumerate fully the direct and indirect potential losses to hunting, fishing, and gathering rights, as well as access to culturally sensitive areas, for the tribal members who have reserved these rights in the territory ceded in the 1854 Treaty.	SO04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Leo Babeu (42517)		
16606	Much more needs to be done to understand the effectiveness, reliability, and operational challenges and limitations of the reverse osmosis treatment system. The analysis needs to consider treatment regimes envisioned post closure. ... It is critical as well to validate that the hydraulic network will bring close to 100 % of the waste water into contact with the R.O. membranes in order to realize the treatment efficiency optimistically projected.	WR128, WR143
16607	Clearly the citizens of this state needed more time, a longer comment period, in which to contemplate what the release of this SDEIS means. This case takes more time than the typical EIS process to try to comprehend the essence of a project that's cloaked in a massive volume of detail and reference material that is very difficult for the average citizen to verify, critically analyze, and reach a definitive opinion about.	NEPA07
<b>Sender Name (Submission ID)</b> leo gross (6606)		
1091	I have family and friends that live on the range and they could use the good paying jobs in that area and we all know the state can use the extra revenue.	SO10
1199	I believe the SDEIS is complete and gives regulators what they need to give polymet the permits to move forward.	PER34
<b>Sender Name (Submission ID)</b> Leo Trunt (54618)		
18104	At its February 13, 2014 meeting, a motion was made, seconded, and following discussion was approved for WMMPB to submit this letter indicating WMMPB support of the proposed Polymet project as described in the SDEIS.	PD28
<b>Sender Name (Submission ID)</b> Leonard Anderson (47782)		
8670	[Polymet has] no data to show a complete year long surface water sulfate-porewater sulfide mass balance to support such a high sulfate release after the growing season [of wild rice]. They must be forced to meet the wild rice sulfate standard of 10 mg/L at a minimum, at all times.	WR153
8693	Sulfate levels below 10 mg/L produced sulfide concentrations between 150 and 300 [µg/L]. The EPA National Recommended Water Quality Criteria for sulfide is only 2 [µg/L]...the SDEIS has to be expanded to include an analysis of the impact of their sulfate releases on the success and reproduction of local fauna as well as wild rice.	AQ12
8703	[W]e know that the same sulfate reducing bacteria that produce the toxic sulfide also methylate mercury and that moves through the food web from invertebrates to vertebrates to man at ever increasing levels of toxicity.	HU03
11283	EPA [announced] that they have dropped their approval of the Mesabi Nugget variance [which would] allow them to store high sulfate waters during the summer growing season and then dump high sulfate loadings in the fall. The PolyMet proposal submits on page 5-216 of the SDEIS that they will use the same seasonality approach for their release of sulfate to waters used for the production of wild rice. They have no data to show a complete year long surface water sulfate-porewater sulfide mass balance to support such a high sulfate release after the growing season.	WR153
11287	the SDEIS has to be expanded to include an analysis of the impact of their sulfate releases on the success and reproduction of local fauna as well as wild rice.	VEG04, WI04
11536	They have no data to show a complete year long surface water sulfate-porewater sulfide mass balance to support such a high sulfate release after the growing season. They must be forced to meet the wild rice sulfate standard of 10 mg/L at a minimum, at all times.	WR153
11540	Now that we are relating sulfate to sulfide, we need to look at the impacts to freshwater fauna as well.	AQ12

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Leonard Anderson (47782)		
11544	So from what we now know, the SDEIS has to be expanded to include an analysis of the impact of their sulfate releases on the success and reproduction of local fauna as well as wild rice.	VEG04, WI01
<b>Sender Name (Submission ID)</b> Leonard Madsen (9818)		
15371	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR115
15372	the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
15375	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health. The SDEIS must be redone, because its predictions are unreliable and its methods conceal, rather than analyze environmental impacts.	GEN03
15377	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
15378	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR189
15395	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR017, WR018
15396	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet's own reports for the Canada stock exchange reveal significant faults and fractures.	WR012
15397	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
15407	This project would violate water quality standards for generations to come.	WR109, WR195
<b>Sender Name (Submission ID)</b> Leonard Major (45027)		
17285	address the issues of 1) the long-term need for protection from the toxic material in the crushed and pulverized mining wastes produced by the proposed PolyMet mine and 2) the degree of effectiveness of their proposed system for keeping the entirety of the wastes produced over the lifetime of the mine separated from and completely sealed off from the natural environment over the time-period the wastes will remain toxic.	PD35

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Leonard Major (45027)		
17286	Putting the viability and environmental safety of a great portion of northern Minnesota at risk for a period of 200 to 500 years or longer is a moral and ethical responsibility that tens of thousands of Minnesotans like myself believe absolutely overrides the economic benefits of 20 years or so of operating the PolyMet mine.	SO01
17287	Please consider the very serious likelihood that the approval of the PolyMet mine will require between 200 to 500+ years, or between 10 to 25+ generations, of scrupulous, 100% effective large-scale environmental protection to keep huge areas of northern Minnesota ground water free from highly toxic pollutants.	PD01
<b>Sender Name (Submission ID)</b> Les Herman (44368)		
10389	I know that between the State and the companies they will do a fantastic job to protect the environment, and as the mining is going on and after, access to hunting and fishing areas will be improved.	LU07
10391	The people need the jobs, and the State needs the Tax revenue.	SO10
<b>Sender Name (Submission ID)</b> Leslie Amundson (3607)		
414	ALL previous mines like this proposed one have had failures, with toxic chemicals leaking into the water supply - 100% failure rate.	WR195
<b>Sender Name (Submission ID)</b> Leslie Davis (44929)		
17335	I thoroughly reviewed how PolyMet proposes to prevent damage to our valuable waters, and wild rice resources, for hundreds of years with gizzillions of dollars, and I won't dignify the absurdity of their proposal with a comment.	PD01
17336	There is no question that discharges from sulfide mining, will over time, negatively affect the quality of the surrounding waters, and the wild rice contained therein that is an integral part of Minnesota's heritage.	WR156
17337	PolyMet says the people want copper, as if there's not enough copper available from around the world.	NEPA03
17338	Now the multitude of companies waiting in the wings for PolyMet to clear the way for them so they can also please the people with gobs of copper, enlisted their union allies and their connections, the school leaders destined to get a piece of the action, and all their political friends, union buddies, and relatives who will get jobs.	CU04
17339	when PolyMet breaks open the sulfide rock and crushes it to obtain the copper for the people, there will be sulfuric acid to the air, acidic wastewater to surrounding water bodies, gobs of asbestos for the workers to breathe and take home nightly on their clothing.	HU03
<b>Sender Name (Submission ID)</b> Lester Haveri (40165)		
6244	Polymet is way to slopply to trust the prime wildlife habitat , the moose ,deer herds ,large fish in the old abanboned ore pits,and the birds from the eagles ,partridge, ducks, geese and many kinds of small birds.	WI01, WI02, WI04
6246	With the more dangerous chemicals ,needed for polymet to extract the metals thay want , would poison the water supply of the whole state.	WR111, WR115

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lester Haveri (40165)		
6247	thay [PolyMet] don't plan to pay any cleanup for the mess thay will cause to the habitat, all the wild habitat will die,the ground water will be poisoned for five hounded years may be forever.	PD01
<b>Sender Name (Submission ID)</b> Levi Hurley (6308)		
1189	I believe Polymet have met every requirement to make this a viable and safe project!	PD28
1191	It has been at least 6 years of work, with all requirements being addressed and resolved.	NEPA16
1192	I would not support the permitting approvals if I thought this had been a rushed and potentially flawed process. On the contrary, it has been a long and well managed one.	PER34
1193	The local area can certainly use the employment opportunities in these trying times.	SO10
<b>Sender Name (Submission ID)</b> Lila&Virg Boehland (14595)		
161	Has PolyMet done this type, sulfide mining, of extraction before? Does PolyMet have a track record? How long have the primary 20 executives for PolyMet been working together?What other mines has PolyMet worked with? What other mining operations have the people in charge of PolyMet worked for? How have those other mining operations done?Is there a track record for the type of mining that PolyMet is proposing? Where has PolyMet operated, successfully, in the past? Who are PolyMet's environmental protection employees? Where have PolyMet's environmental protection employees been employee most recently? What other mining companies have PolyMet's environmental protection employees worked at over the past 20 years?	PD23
<b>Sender Name (Submission ID)</b> Lily (54194)		
17223	the mine ... does not guarantee any longterm jobs and will destroy the already striving economy and culture up there.	SO01
17612	The environmental effects of this mine seem as if they would be devastating and permanent, Impacting the state for hundreds of years. It seems extremely unlikely that it would be possible for Polymet to continue the water rehabilitation for the two-hundred plus years that would be needed.	WR128
17613	Yet another thing that I was appalled to see, was that the mining might prevent the control of Invasive species, while so many native ones would be destroyed. Another major concern of mine was that there seemed to be a pretty large amount of the Superior National Forest that would be destroyed once the mining was done.	VEG02, VEG05
18163	Although the jobs the project promises would be good for Minnesota, likely quite a few would temporary jobs, and it seems like there wouldn't be very many permanent jobs. So the jobs wouldn't really be very beneficial to the state if they are just temporary.	SO06
18164	I was sad to see that the plan for this mining includes the complete destruction of nine hundred and thirteen acres of wetlands. Especially since wetlands hold so many of our native plant and animal species.	WET24
18165	I was also sad to see that the plan included the possible destruction of several already endangered species and eleven different plants, since wildlife means so much in Minnesota.	VEG01, WI01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Lily (54194)		
18166	the value of these minerals will only increase over time, since I believe this is true I think that the mining should be halted until Polymet can come up with a plan that significantly decreases the harmful lasting effects.	NEPA03
18167	I was appalled and alarmed that the plan included some possibly harmful and lasting air pollution that would be incredibly hard to undo in the future.	AIR01
<b>Sender Name (Submission ID)</b> Lin Hipp (39350)		
12838	Due to the problems with the draft mine plan...I believe the mine should not be built as described.	NEPA15
<b>Sender Name (Submission ID)</b> Linda & Michael Sweno (11630)		
7417	We need jobs! Polymet has fulfilled the necessary requirements in preparation to start mining while also being responsible in following environmental laws. ...We want this project to move forward to improve the lives of our families.	SO10
7417	We need jobs! Polymet has fulfilled the necessary requirements in preparation to start mining while also being responsible in following environmental laws. ...We want this project to move forward to improve the lives of our families.	SO10
<b>Sender Name (Submission ID)</b> Linda A Forsland (20058)		
1701	20 years of jobs is not worth potentially ruining our water for 200-500 years.	SO01
<b>Sender Name (Submission ID)</b> Linda and Ed Hendrickson (57260)		
17395	1.If this project goes ahead, then in subsequent years even lower grade [ILLEGIBLE] of ore will be targeted with even more dire consequences.	CU02, PD30
17396	2.The state doesn't even make taconite plants meet all their environmental standards which is bad enough already.	PER06
17397	3.Once the environment is destroyed for a few short term jobs, you can't get it back.	SO01
<b>Sender Name (Submission ID)</b> Linda Dehrer-Wendt (43855)		
14942	We understand the need for jobs, but the potential downsides of an environmental disaster are just too great.	SO01
<b>Sender Name (Submission ID)</b> Linda Dietz Fredlund (54787)		
17984	Recreation is a precious economic resource for Minnesota. Rural/outstate Minnesota depends on waterways/recreation for its economy....Save our waterways!	SO02
<b>Sender Name (Submission ID)</b> Linda Forcier (7055)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Linda Forcier (7055)		
455	...it [the Project] will bring 300 jobs for 20 years to the area. This is very shortsighted compared to the hundreds of years of possible pollution. After 20 years the area will not only be possibly devastated by pollution but also be more destitute of jobs than now. Especially if the mining decreases tourism.	SO01
456	The risks to trees, wild rice, animals, birds, and even people cannot be ignored.	VEG10, WI13
457	With the global threats related to earth warming, this is not the right time to add to the problems.	AIR01
<b>Sender Name (Submission ID)</b> Linda Glaser (42798)		
12761	The SDEIS admits that every year over 5 million gallons of polluted seepage from the tailings basin will enter groundwater and the environment without being treated.	WR070
13953	No amount of clean up money can restore the loss and contamination of ground and surface waters, along with the loss of forests, wetlands, and wildlife.	VEG03, WET24, WI01, WR070
13954	Land dominated by leaching mine waste rock piles, tailings basins, and open pits is no longer usable	LU06
14428	I am very concerned with the proposed Land Exchange. The Federal US Army Corp of Engineers Mitigation rules require that compensatory mitigation replaces the lost wetlands within the same 8 {ILLEGIBLE} hydrological unit code, HUC. Yet the Polymet plan does not compensate for wetlands destruction at the Polymet site, or do the same job and serve the same habitat and the same streams.	WET03, WET15
14429	On page 327, chapter 5 of SDEIS, 68% of the wetlands replacement acres are outside the Lake Superior basin and 72% of the “credits” are outside the Lake Superior basin. That is NOT right!Please make sure that Polymet’s plan is redone so that it compensates properly for the loss and injury – wetlands in Lake Superior basin.	COE01
14430	I am very concerned that there are no contingency plans outlined for expected accidents that occur at all mines of this type such as pipeline spills, accidental releases, failures of water collection and treatment systems, and tailings basin failure.An emergency plan must be developed and articulated so that the public can see that the company can and will respond to a crisis.	PD22
14431	...the mining proposal...is an irresponsible plan that allows 11 million gallons of polluted seepage from the tailings basin to enter groundwater and the environment without being treated.	WR070, WR117
18957	I am very concerned that the SDEIS states that 200-500 years of clean up will be required. Yet the MN Rule 6132.3200 does not allow perpetual treatment. It requires that once a mine is closed, it must be maintenance free	PER04
<b>Sender Name (Submission ID)</b> Linda Hendrickson (54139)		
16035	If this project goes ahead, it will pave the way to mine even lower grade ore bodies causing even more damage.	CU04
<b>Sender Name (Submission ID)</b> Linda Herron (43058)		
11467	I am concerned about the loss of high-quality wetlands in exchange for moderate and low-quality wetlands in the land exchange....some 6,000+ acres will be adversely affected ...by the NorthMet Mine.	WET14

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Linda Herron (43058)	
11471	How are carbon releases from impacted wetlands measured?	AIR01
11473	How can we allow for such a large loss of wildlife habitat and the negative impact on wildlife travel corridors?	WI02, WI03
11476	Where is the data on the effects on migratory bird species?	WI01, WI11
11477	I have difficulty understanding how MN Rule 6132.3200 can allow for a perpetual water treatment following a mine closing. It seems to be a matter of semantics whether it is called "long term" or perpetual: 500 years says perpetuity to me.	PER04
11479	...what are the contingency plans for accidents ...[including] pipeline spills, failure of water treatment systems, accidental releases of contaminated water and tailings basin failures. What about the known fractures and faults in the area of the tailings basin? Contingency plans need to be detailed in the SDEIS so that the citizens of Minnesota have all pertinent information before permitting begins.	WR012, WR129, WR130, WR131
11480	... when the risks to the environment over hundreds if not thousands of years are weighed against the relatively short term and unimpressive economic gains, it is clear that the public will not benefit.	SO01
12612	I ask that a 90- day extension be made for comments on the SDEIS and the Section 404 wetlands permit.	NEPA07
12613	information on geological conditions such as earth fractures under tailings pits is missing	WR010
12614	data on carbon losses due to destruction of wetlands is missing	WET13
12616	water flow data on the Partidge River has been questioned by the tribal community and therefore this data needs to be re-examined by the USACE	WR003
12998	I am concerned about the loss of high-quality wetlands in exchange for moderate and low-quality wetlands in the land exchange.	WET14
13000	How are carbon releases from impacted wetlands measured?	AIR01
13002	How can we allow for such a large loss of wildlife habitat and the negative impact on wildlife travel corridors? Where is the data on the effects on migratory bird species?	WI01, WI02, WI03
13003	I have difficulty understanding how MN Rule 6132.3200 can allow for a perpetual water treatment following a mine closing. It seems to be a matter of semantics whether it is called "long term" or perpetual: 500 years says perpetuity to me.	PER04
13004	what are the contingency plans for accidents which occur at most mines of this type? ...Contingency plans need to be detailed in the SDEIS so that the citizens of Minnesota have all pertinent information before permitting begins.	PER06
13006	What about the known fractures and faults in the area of the tailings basin?	WR012
13007	when the risks to the environment over hundreds if not thousands of years are weighed against the relatively short term and unimpressive economic gains, it is clear that the public will not benefit.	SO01
16309	the SDEIS is extraordinarily long...it is complicated and difficult for a non-scientific person to understand; it appears to be written for the scientific community rather than the general public	NEPA07

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Linda Huhn (42499)	
7207	Research and experience show the proposed mining operation would probably poison our groundwater forever.	WR023, WR071
7208	I'm a regular consumer of hand harvested Minnesota wild rice, which I understand cannot grow in water with elevated sulfate levels.	VEG04
7371	This type of pollution will also have a negative effect on tourism and fishing, making an additionally an economic issue.	SO02
7372	I hear that recent news of internal DNR documents show serious flaws in the research on this project, leading me to question whether any research was based on sound science.	NEPA15
8847	Research and experience show the proposed [PolyMet] mining operation would probably poison our groundwater forever.	WR115
8847	Research and experience show the proposed [PolyMet] mining operation would probably poison our groundwater forever.	WR115
8849	I'm a regular consumer of hand harvested Minnesota wild rice, which I understand cannot grow in water with elevated sulfate levels [resulting from the Polymet project].	WI03, WI02, WI01, WI11
8849	I'm a regular consumer of hand harvested Minnesota wild rice, which I understand cannot grow in water with elevated sulfate levels [resulting from the Polymet project].	VEG04, WR156
8851	This type of pollution [resulting from PolyMet project] would also have a negative effect on tourism and fishing, making it additionally an economic issue.	SO02
8851	This type of pollution [resulting from PolyMet project] would also have a negative effect on tourism and fishing, making it additionally an economic issue.	SO02
8853	I hear that recent news of internal DNR documents show serious flaws in the research on this project, leading me to question whether any research was based on sound science.	WR003
8853	I hear that recent news of internal DNR documents show serious flaws in the research on this project, leading me to question whether any research was based on sound science.	WR003
8855	I'm not too excited about elevated mercury levels in children either [resulting for the PolyMet project].	MERC03
8855	I'm not too excited about elevated mercury levels in children either [resulting for the PolyMet project].	MERC03
15360	I'm not too excited about elevated mercury levels in children either.	MERC03
17507	Research and experience show the proposed mining operation would probably poison our groundwater forever.	WR023, WR071
17508	I'm a regular consumer of hand harvested Minnesota wild rice, which I understand cannot grow in water with elevated sulfate levels	VEG04, WR156
17509	I'm not too excited about elevated mercury levels in children	MERC03
17510	This type of pollution would also have a negative effect on tourism and fishing, making it additionally an economic issue.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Linda Johnson (15390)		
13816	I believe it is in the best interest of our State and the Country to say no; or at least not until you can prove a more successful mitigation for this project.	PD01
<b>Sender Name (Submission ID)</b> Linda Laumb (45949)		
10377	The proposal made by PolyMet, if approved, opens the door to mining all along Birch Lake, South Kawishiwi and other areas on north to the BWCA. We have seen the devastation that copper/nickel mining has caused in areas such as Sudbury, Ontario, Canada and how a community suffers when left to clean up the waste of companies who have no interest in the area once they have taken from it what they want. We do not feel that any precautions PolyMet is proposing will be adequate to prevent devastation to the land and waterways as well as the economy in our beautiful area.	WILD02
10381	... if there is the slightest chance that waters will be polluted the fishing guides, resorts and outfitters will lose much more revenue than the region will gain from the few hundred permanent jobs PolyMet is proposing for the area.	SO01
10384	Had we known of the proposed copper/nickel mining eleven years ago, we would not have chosen this area to build our cabin. Real estate values could suffer dramatically, which will affect the tax base for waterfront properties in the region as well as homes and businesses in the cities in these regions.	SO03
10398	If the drinking water is affected, that will add even more devastation to the area.	WR041
10401	the effects from noise and air pollution [need to be considered]. With the amount of mining that is proposed, this type of pollution is inevitable to an area where people come to enjoy clean air and peaceful quiet days.	N01
<b>Sender Name (Submission ID)</b> Linda Malick (39296)		
7239	The Boundary Waters Canoe Area Wilderness is America's most visited wilderness area and one of the oldest designated wilderness areas in the nation. Despite what proponents of the copper-nickel mines say, creating new mines within 50 miles of Ely would be extremely detrimental to our local economy.	SO02
7243	The mines will not only be an eyesore, they will also increase rail and truck traffic, which would negatively affect tourism in the area. The noise from drilling and moving material destroys the wilderness experience on the southern end of the Wilderness area near Spruce Road and Birch Lake.	SO02, WILD02
7249	Most importantly, there is no evidence that our most precious resource, the interconnected system of pristine waterways, will adequately be protected. Acid mine drainage in our waters is unacceptable.	WR111, WR115
7251	Sulfide-bearing rock brought to the surface will turn into sulfuric acid and leach into our waterways, resulting in irreparable damage to our biotic community.	WR001, WR113
12830	The noise from drilling and moving material destroys the wilderness experience on the southern end of the Wilderness area near Spruce Road and Birch Lake.	N02
<b>Sender Name (Submission ID)</b> Linda Ronchetti (12736)		
98	It [the SDEIS] doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	SO04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Linda Ronchetti (12736)		
100	It [the SDEIS] doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	CU11
101	It [the SDEIS] doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	WET20
1709	Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	VEG04, VEG06
1710	The PolyMet SDEIS is still inadequate. It makes claims without facts behind them. It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells. It doesn't explore alternatives that could reduce PolyMet's destruction of wetlands. It doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	NEPA15
1711	Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity."	WR035
<b>Sender Name (Submission ID)</b> Linda Rossin (27586)		
14741	What can be so important about this mine's harvestings that we are willing to pollute our land and the water we drink again and again?	SO01
<b>Sender Name (Submission ID)</b> Linda Sexton (40877)		
13965	People as well as wildlife depend on clean water; once ruined, we may spend decades getting it cleaned--if ever it happens at all in our children's lifetimes.	WR115
<b>Sender Name (Submission ID)</b> Linda Spyhalski (40041)		
6710	The state will have to spend taxpayers money to clean up the mess made by this mine!	FIN10
<b>Sender Name (Submission ID)</b> Linda Stephan (29364)		
9352	The area in question [the Boundary Waters Area] attracts many tourists and sportsmen to your state. Birders too, and I am one. We spend a lot of money there. This is a long-term benefit to you and it will cease if the area is defiled.	LU06
<b>Sender Name (Submission ID)</b> Linda Tyssen (10739)		
601	PolyMet would be -- no, will be -- vital to the future of the Mesabi Iron Range.	SO10
<b>Sender Name (Submission ID)</b> Linda Unsworth (42088)		
2023	the SDEIS is insufficient ... because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN01
2024	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Linda Unsworth (42088)	
2025	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats. This trade-off is not worth the risk.	SO01
<b>Sender Name (Submission ID)</b>	Linda Uscola (9600)	
1134	No one seems to be emphasizing that in MN the environment IS also an industry....it's called tourism. Why risk this major industry, which affects thousands of small businesses and individuals, to aid a private, big business?	SO02
<b>Sender Name (Submission ID)</b>	Linda Wiig (42939)	
9930	First, one of the greatest resources we have is the water. Many wetlands will be destroyed and supposedly relocated. Now many know that there has never been a recreated wetland that does the work of a natural wetland. 913 acres of wetlands are to be destroyed not to mention many other acres that will be impacted by this type of mine.	WET24
9933	Do the mining entities...know where all the water goes as it makes its way through the watershed? Blasting will occur creating cracks and fissures with the potential to add to the pollution load. Seepage will occur too—it can't be stopped. Mercury contamination already is at a higher level in the St. Louis River and Duluth wants to clean up more of the St. Louis River—how can this happen?	MERC19, WR010, WR016, WR105, WR158
9935	I also understand that Colby Lake water most likely will be impacted due to contamination from arsenic. Hoyt Lakes residents will be exposed to levels above Minnesota guidelines for cancer...Who will supply water to those people whose wells may be compromised due to contamination?	HU03, WR041, WR043
9936	If these minerals are to be mined, can not the impact be mitigated by having an underground mine? The SDEIS says it is feasible, just less money to be made, fewer jobs, and less length of time to be open. But there are environmental benefits!	ALT01
9937	I am very worried about the cumulative effects of all the proposed mining that different companies want to do in Minnesota especially around Lake Superior.	CU04
14502	What about the Sax Zim Bog?? What about the toxic effects on this important ecosystem?? Who in their right mind thinks that when this area is polluted that it could be cleaned up or replaced?	WET06
14503	I understand that some of their waste rock will be placed on top of the LTV tailings that are in an unlined pit which is allowing pollution to enter the water now.	WR173
14504	Why not create a better recycling system for all of our electronics and capture some of these precious metals. It would put people to work.	ALT09, ALT16
14505	Will our legislature require adequate monetary assurances for cleanup costs—how does one set a number on loss of habitat, and possible health problems of humans for many, many, many years to come? Will the state be tied up in legal battles for years to come too?	FIN05
<b>Sender Name (Submission ID)</b>	LindaMay Patterson (37204)	
15922	Why our state would let PolyMet mine in high quality wetland habitat only proves that at little money and a few jobs is more important than our long term concern for the environment.	SO01
15923	This mine would be in the largest designated Important Bird Area in Minnesota. Why would you risk destroying this area?	WI02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> LindaMay Patterson (37204)		
15924	Also consider that all the chemicals and toxic metals such as mercury, copper and nickel that would be unleashed into our environment affecting the aquatic organisms and habitats downstream.	AQ05
15925	The food chain would be disrupted, birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons.	WI01
<b>Sender Name (Submission ID)</b> Lindsay Dean (11549)		
2508	What are the details of the proposed water treatment systems?	PD03, PD04
2508	What are the details of the proposed water treatment systems?	WR128, WR130
2509	How will up to 500 years of water treatment be paid for?	FIN01
2509	How will up to 500 years of water treatment be paid for?	FIN01
2510	What will be done to protect and replace significant habitats and species?	VEG01, VEG03
2510	What will be done to protect and replace significant habitats and species?	WR001, WR115
2511	What will be done to assure that wetland impacts will be replaced before the effects are noticed by monitoring?	COE02
2511	What will be done to assure that wetland impacts will be replaced before the effects are noticed by monitoring?	COE02
<b>Sender Name (Submission ID)</b> Lindsay Sovil (4055)		
848	Copper mining absolutely does not belong in this water-rich area. The pollution generated by the mine would cause damage for over 500 years, or forever!	WR035
849	The few short term jobs created by this project in no way compensate the state of Minnesota for the loss of one of the most beautiful wilderness areas in the country. For centuries into the future, the people of this state will be regretting what this generation did in the name of a brief period of profits.	SO01
<b>Sender Name (Submission ID)</b> Linne Jensen (47517)		
11335	I am concerned about the damage such mining has historically done to the landscape and to the health of area residents.	HU03
11337	I am concerned about the pollution that is left behind for hundreds of years after mining ceases, especially water pollution. Northern Minnesota is the site of 3 major watersheds... I am concerned that the proposal under consideration from PolyMet for a facility in the Hoyt Lakes area will cause unmitigated damage, and that it will be followed by other such proposals from other corporations which will cause additional damage	WR115, WR198
11339	I support jobs in northern Minnesota that are sustainable to all life in the area, and I encourage the Minnesota Department of Natural Resources to take a leadership role in promoting sustainable industry.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Linne Jensen (47517)		
17982	I am concerned about the pollution that is left behind for hundreds of years after mining ceases, especially water pollution. Northern Minnesota is the site of 3 major watersheds. We and many states downstream from us need fresh clean water.	WR107, WR108, WR111
17983	I am concerned about the damage such mining has historically done to the landscape and to the health of area residents.	HU03
<b>Sender Name (Submission ID)</b> Linnea Mohn (46301)		
13658	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
<b>Sender Name (Submission ID)</b> Lisa (54331)		
16824	I think that having the mining start will benefit Minnesota's economy, but will it benefit our wildlife? Who knows, maybe it will affect more things than you know. Some of the advantages would be that it will be a big moneymaker, it will supply many jobs, and it will help our economy. Some disadvantages will be the wildlife, pollution, and nature in general will be affected.	SO10
16825	The cultural resources in the area will be affected. Mostly the historic and cultural resources.	CR05
17377	There will also be a lot of noise, dust, visual obstructions, and access restrictions to certain areas. People may not like that who live near to the area.	N01
<b>Sender Name (Submission ID)</b> Lisa Boulay (48119)		
11346	I have not seen the estimate of how much money PolyMet would have to escrow to clean up the site . How do you estimate how much it would take to monitor for 500 years ?	FIN01, FIN05
11350	The health risks of the mine have not been adequately study. We need to know the cancer risks.	HU01
11352	It has not been shown that this will bring high numbers of long term jobs. The risk to the environment is not worth the few jobs it would provide	SO01
11357	Deny PolyMet permits till they prove that it can be done safely. The wetlands of Minnesota are no place for an experiment	PD32
13239	I have not seen the estimate of how much money PolyMet would have to escrow to clean up the site . How do you estimate how much it would take to monitor for 500 years ?	FIN05, FIN11
13240	The health risks of the mine have not been adequately study. We need to know the cancer risks.	HU01
13241	It has not been shown that this will bring high numbers of long term jobs. The risk to the environment is not worth the few jobs it would provide " this is not your grandfather's iron mine ".	SO01
<b>Sender Name (Submission ID)</b> Lisa Coons (16965)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lisa Coons (16965)		
11027	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Lisa Luttinen (2075)		
556	keeping our water safe for 20 years let alone 500.	WR115, WR195
<b>Sender Name (Submission ID)</b> Lisa Proechel (42817)		
7184	Polymet started the planning/permitting process before the economic slow-down, but now the demand for new copper is not so great, and it could be adequately met by greater effort to recycle used copper....Is there a "Plan B" to mine platinum and gold if copper does not generate the expected revenue? The so-called PGE's (platinum group elements) are more toxic to mine, gold sometimes using cyanide for it.	SO02
7192	Do treaties with Native-American sovereign nations take precedence over other U.S. laws?	PER08
7194	Members of my family and I have vacationed along the North Shore of Lake Superior, once on Isle Royale, and have canoed in the BWCA many summers. The Polymet project admits they will be mining "low to medium grade copper", with tons of waste and huge open pits (scars) on the landscape which will require large (estimated) quantities of water, possible requiring clean- up for hundreds of years.	WILD02
<b>Sender Name (Submission ID)</b> Lisa Pugh (21449)		
1246	Even though the mines will not be located within the BWCAW, their proposed locations have the potential to cause irreversible harm to the surrounding watershed(s)	WR111
14203	I am asking for the best possible collection and analysis of data from unbiased sources about how this mining operation could impact our environment and thus, our quality of life.	NEPA09
<b>Sender Name (Submission ID)</b> Lisa Wersal (6147)		
1048	by their own admission, Polymet's system will allow millions of gallons of untreated wastewater, with heavy metals and acid, into our surface and groundwaters. Eventually, this water may make its way even to Lake Superior.	WR070, WR111
1049	Are we prepared, not only for the cleanup costs, but for the inevitable lawsuits that we will face, from residents and businesses, and possibly other states surrounding Lake Superior? We just don't know how bad the damage will be..	FIN10
14418	The relationship between two front-page stories needs to be underscore ("Divisive copper mine draws full house and strong views," and "Climate risk is critical, U.N. Warns," 1/17/14).	REF01
14419	When we analyze the copper mine proposal, there is at least one highly volatile variable that should put us on high alert -- climate change. Already, our state has seen torrential rains and flooding, rivaling and surpassing historical records (as one instance, think of Duluth a couple years ago). How would severe flooding affect the proposed cleanup operations at the mining site? Would facilities be overrun, releasing polluted water in massive quantities? Might the cleanup facilities be rendered inoperable?	AIR01
17892	PolyMet's open-pit sulfide mine would impact as much as 8,000 acres of high quality wetlands. These wetlands ensure clean water and protect fishing in the St. Louis River and Lake Superior. This would be the largest permitted destruction of wetlands in Minnesota history.	WET23

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lisa Wersal (6147)		
17893	PolyMet's sulfide mine would create a permanent waste rock heap of 168,000,000 tons and dump 228,000,000 tons of tailings on top of a tailings basin that is already leaking and violating water quality standards.	WR070
17894	Pollutants from PolyMet's waste rock heaps, mine pits and tailings dump are likely to seep, leak and propagate through fractures in rock. These pollutants include arsenic, lead, manganese and mercury, which harm human health, as well as sulfates and metals that are toxic to wild rice or aquatic species.	WR070, WR107, WR108, WR126
17895	Pollutants at the PolyMet mine site and tailings dump would exceed water quality standards for 500 hundred years if not eternity.	WR035, WR144
17896	PolyMet is suggesting that it will treat some of its mining pollution essentially forever - using untested technology.	PD32
17897	Glencore, a global commodities giant with a record of environmental, financial, and human and workerrights violations, now owns about 34.9% of PolyMet and is likely to own more. In its merger with Xstrata, Glencore committed to provide copper concentrate to China for the next 8 years. Metals and profits would go abroad, leaving pollution for local communities. Benefits to the community? PolyMet claims it would hire a few hundred local residents at the mine. The mine is currently proposed to operate for 20 years. This will be followed by an eternity of pollution.	SO06
19374	It's ludicrous to suggest that water can be contained well enough for over 500 years to make this project safe.	WR128, WR129
19375	There's no precedent anywhere of a mining company being able to capture all the contaminated water and treat it properly, least of all a company like PolyMet that has never operated a mine before.	PD26
<b>Sender Name (Submission ID)</b> Liz Nordling (21227)		
907	I believe that our water is our most precious resource in Minnesota and this mine would do irreparable harm to it.	WR115
<b>Sender Name (Submission ID)</b> Liz White (14406)		
13742	Clean water and natural lands are not something that can be replaced, and every loss needs to be viewed as cumulative	CU11
13743	Please consider the long term effects, and weigh these relatively short-term benefits against the permanent losses that will occur	PER35
<b>Sender Name (Submission ID)</b> lizz (46924)		
10827	While we might all want to assume that Minnesota is water-rich and that our state has no issues with water-quality or quantity, that is simply not true. The threats to our water that are part and parcel of the PolyMet proposal are real. We ask that this proposal be denied and that further investigation be ordered.	WR195
<b>Sender Name (Submission ID)</b> LK Woodruff (35700)		
11285	Sulfide mining has never been done in Minnesota. Why? Because it threatens wetlands, rivers, lakes and streams across the Arrowhead Region of Minnesota, including Lake Superior and the Boundary Waters Canoe Area Wilderness.-->There goes tourism!	SO02
<b>Sender Name (Submission ID)</b> Lloyd Hansen (47784)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lloyd Hansen (47784)		
8721	Polymet is proposing a sulfide mine in one of the most water-rich environments on the planet, that would impact the most-visited wilderness area in the country, the BWCA, and the largest (by area) freshwater lake in the world. The proposed mine would increase levels of arsenic, copper, lead, antimony, selenium, cobalt and nickel in surface waters to proscribed levels.	WR024, WR071, WR081, WR111, WR175
8723	Polymet does not adequately address the subterranean hydrology of the area which has a number of geologic faults.	WR012
8732	Polymet's SDEIS presents a view of their operations that considers no contingency plans for accidents in the mining process or for extreme weather events.	PD22
11297	I realize there is pressure to push through economic development, which tends to be of short-term benefit. Your missions, which include human and habitat health and sustainability, call for a long-term view. I call on you to be true to your missions and reject the SDEIS and the mine.	SO04
11723	The proposed mine would increase levels of arsenic, copper, lead, antimony, selenium, cobalt and nickel in surface waters to proscribed levels.	WR107, WR108
11727	Polymet does not adequately address the subterranean hydrology of the area which has a number of geologic faults.	WR012
11733	Polymet's SDEIS presents a view of their operations that considers no contingency plans for accidents in the mining process or for extreme weather events. The data show that extreme weather events are occurring with increasing frequency....	PD22
15896	I realize there is pressure to push through economic development, which tends to be of short-term benefit. Your missions, which include human and habitat health and sustainability, call for a long-term view. I call on you to be true to your missions and reject the SDEIS and the mine.	SO01
15897	I appreciate the incalculable value of pristine waters and land. I know your jobs are not easy, but I trust you to recognize that the greater economic value lies in tourism that allows thousand of people to experience these crown jewels of northern Minnesota. And that value requires protecting the wellbeing of this special region.	SO01
<b>Sender Name (Submission ID)</b> Lloyd Hoefl (18215)		
2177	Minnesota has some of the nation's strongest environmental laws and financial assurance regulations. Combining these strict standards with the lengthy and thorough environmental review process will ensure the copper-nickel mining will be done right. PolyMet's a resourceful project.	PER34
2178	This project will employ 360 people, create 600 more spinoff jobs and over the next 20 years, generate 721 in wages and benefits, in addition, there will be \$10.3 billion in economic benefits to St. Louis County, as well as \$300 million in local and state tax revenue, and \$900 million in the federal tax revenue. That's a lot money that we can reinvest into our state. Let's use this opportunity to build a stronger sustainable industry that will allow future generations to grow and prosper in the Iron Range for generations to come.	SO10
2179	The economic opportunities that copper-nickel mining brings is exactly what our state needs to both jobs and mine the minerals we use in our daily lives.	SO10
<b>Sender Name (Submission ID)</b> Lloyd Schallberg (47619)		
7419	The gamble of maintaining a fresh water supply in Northeast Minnesota is too great to allow the mining of copper-nickel here. Purifying polluted water for hundreds of years is not part of a sustainable industry and does not make common sense.	WR035
<b>Sender Name (Submission ID)</b> Logan Olson (54349)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Logan Olson (54349)

- 18169 I know that the mining project would create jobs and a potentially stronger economy for Minnesota, but what will we be left with after the twenty years? We'll be left with people who no longer have jobs, and one of the state's treasured natural habitats left nearly destroyed. SO06
- 18170 the current land exchange offers wouldn't be able to make up for this loss of land and habitat for Minnesota's beloved wildlife. LAN01
- 18171 Not only could wildlife on land be affected, but also the wildlife of surrounding lakes, rivers, and streams. The waterways of this state are important to all of its citizens and we all want to ensure that they are kept safe from pollution and harmful chemicals that could create potentially deadly chemical reactions. AQ06
- 18172 There are also many sites of cultural importance to Minnesotans that could be at risk by the mining project. The three identified sites are The Sugarbush, Beaver Bay to Lake Vermilion Trail, and Mesabe Widjiu which is sacred to the Ojibwe people. Losing these lands would be a huge loss for the people of the area. Also, there are several historical sites in the area. We should try to protect these important sites instead of putting them at risk. CR05
- 18173 mercury that rubs off when the ore comes into contact can pollute water, killing fish and vegetation. MERC02

**Sender Name (Submission ID)**    Loi Kemp (44092)

- 14906 The threat of sulfide water pollution, the unique and nearly everlasting concern of acid drainage from metal mining and the waste rock it leaves behind, will multiply in its impacts on the region's waters, beginning with how it increases mercury in the food chain. WR001, WR113
- 14907 A promise to "control" or "capture" [seepage] is meaningless. We need precise information on untreated versus treated levels, and detailed scientific information on how the capture takes place, and where residues end up. PD04
- 14908 The SDEIS apparently halved the normal 70-year "lifetime" used for cancer analyses to 30 or 40 years, and I urge you to investigate and correct that assumption. HU06
- 14909 Is the social and economic benefit large enough to justify an acceptable amount of environment harm? My prediction is that a couple of decades of modest numbers of jobs will never justify the environmental and human health tragedies left behind after hundreds of years. SO01
- 14910 My second major concern with the SDEIS Is that it fails to carry out a full analysis of a range of alternatives. ... Significant alterations in activity or scope or mitigation should be fully disclosed and analyzed as to their impact on all aspects of the project. The "Do Nothing" alternative, to not build a mine at all, is to always be included and compared to the impacts of the proposal. ALT21

**Sender Name (Submission ID)**    Lois Braun (6191)

- 9343 Even if we could manage this seepage in the present, there is no way that any human being alive today can guarantee continued management that far in the future. FIN01
- 10524 I find it astounding that a copper sulfide mine of the type proposed by PolyMet is even being considered in a part of the country dominated by wetlands. Copper sulfide mining has never been carried out safely in wet ecosystems. WET24

**Sender Name (Submission ID)**    Lois I Hamilton (54889)

- 18816 Water is a basic for all life -- human and non-human. It is not an unlimited resource. We cannot afford to pollute the Boundary Waters. PER12

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lois I Hamilton (54889)		
18817	Trying to restore the [Boundary Waters] area after mining is not a good idea economically.	SO01
<b>Sender Name (Submission ID)</b> Lois Norrgard (16101)		
1231	I am asking for an extension to the comment period on the Polymet Northmet SDEIS. March is fast approaching and I find that reading 2000 + pages - and trying to understand all that this project means to Minnesotans, it time consuming.	NEPA07
1232	This project has far-reaching implications for the future of Minnesota, our arrowhead region, and I need to understand better the economics of a short term and very destructive extraction process	SO04
1233	Please extend the timeframe for Minnesotans to understand this project. We really need at least double the time that has been given so far.	NEPA07
15946	I believe that the SDEIS has shown that this project should not move forward, there are many instances of missing, inadequate, and even false information contained within this document....	NEPA15
15947	what is included has proven that this project is too great a risk to our waters, wildlife, air, environment and local communities to move forward and must be denied.	PD01
15948	I urge the United States Army Corps of Engineers (Corps) to deny the Section 404 permit due to the unacceptable adverse impacts to thousands of acres of wetlands and inadequate replacement plans.	COE03
15949	We are using up the planet and cannot continue down this path. Projects, like this one, that bring far more costs, impacts, and destruction than they do value to us and future generations should be stopped.	PER35
15950	We need to have foresight and create jobs yes, but make sure these jobs are good jobs, livable wage jobs, and HEALTHY jobs.	SO06
15951	500 years of increasing risk and threat to peak and then maybe start to dissipate at the 500 year mark to continue to pollute for another 500 years and probably beyond. This fact alone should be all that it takes to deny this project. And yet, we continue to discuss this !?	PD01
15952	The mercury, lead, arsenic, copper, nickel and other toxic metals that escape from the mining site and any water collection and treatment process will affect aquatic life and accumulate in birds and people who eat the fish or wild rice found in the river. This risk of toxic aquatic pollution will last for centuries.	WR115
15953	We also have no information within the SDEIS about what pollutants and at what concentrations PolyMet will be addressing in the captured waters or how this “magical” reverse osmosis is supposed to work and be trusted to keep the discharged water within state standards.	PD03
15954	The SDEIS is inadequate due to the fact that climate change was not analyzed.	PD22
15955	the pit itself is a source of toxic runoff that will not be captured and treated. This area will fill with groundwater, rain and snow. Increasing “100 year” rainfall events will occur more consistently due to our changing climate. There is no way that PolyMet would have been able to address the amount of water that fell during the recent Duluth flood that washed out roads and bridges.	WR077, WR173, WR176, WR180
15956	The land exchange does not protect the public trust or public land values – the proposed new land parcels (yes multiple parcels not a contiguous large patch of habitat like what we would be losing) the Forest Service would receive under this agreement are also “severed”, the public citizens will not have the mineral rights under these new lands.	LAN04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Lois Norrgard (16101)	
15957	This project is far too great a risk for some of Minnesota's most precious wildlife and still natural places – many places that are on the national radar as outstanding places to vacation and visit.	LU06
15958	The mine will destroy 900 acres of high quality wetlands, e.g., rare coniferous bogs and tamarack swamps, and degrade an additional 7,300 acres of wetlands – perhaps the largest wetland loss in MN history.	WET23
15959	leaking polluted water will impact the Superior National Forest, the Sax-Zim Bog, the Saint Louis River Estuary, the BWCA ..., and one of a few remaining natural wildlife corridors – these corridors are extremely important as safe movement zones for our wildlife.	WI03, WI04
15960	Sulfate releases will exceed the state standard for wild rice and will likely eliminate wild rice in the St. Louis River and its tributaries.	VEG04, WR162
15961	[The "Special Concern"] listing should trigger analysis of PolymMet's impact on moose habitat, but that analysis is lacking. Thousands of acres of moose habitat would be destroyed at the PolyMet mine site, and moose have been observed there. Protecting moose is a particular concern for tribal members, and there is no analysis of the cumulative impact on moose from the PolyMet project and other habitat disruptions.	WI01, WI02
15962	the PolyMet mine plan fails to analyze the cumulative impact on lynx from the proposal and other nearby projects. The mine plan also fails to consider ways to mitigate the risk to lynx from road traffic.	WI01, WI08
15963	overly optimistic assumptions falsify the entire document and allow the entire document to show the most minimal of impact – though incredible even in what is admitted to - that could possibly be to water, wildlife and human health. All of this is false and unrealistic – flawing the whole analysis.	GT14
15964	Lack of alternatives! – the SDEIS does not do an adequate (actually any, Really – which is federally required) alternatives analysis.	ALT23
15965	The SDEIS avoids discussion of the detailed performance of the proposed active water treatment systems. The lack of information about design and expected performance, operational effectiveness, and contingency plans for water treatment when the plants are down for maintenance, repairs or replacement is critical.	WR131, WR143, WR148, WR176
15966	The SDEIS avoids analysis of possible failure scenarios for tailings dams and waste rock stockpiles that will become permanent landscape features. These will fail – the public needs our agencies to do a realistic analysis of these failures and what action(s) would be taken to address this.	PD11
15967	Acid Mine Drainage – the full analysis and the impact of this on our water world of northern MN. The fact that nowhere in the world has this type of mining been done without toxic impacts to water is not clearly laid out for us	PD26
15968	The human health and safety impacts are completely missing from the SDEIS and must be addressed. One of which is PolyMet would produce mineral dust smaller than what is regulated and has been studied. ... Mercury and other toxic leaching to human health should also be realistically analyzed.	HU01
15969	The 11 other companies waiting in the wings for additional mines (are well known and not speculative) should be addressed in a cumulative impacts analysis. This is completely missing in this SDEIS and should be addressed.	CU02, CU04
15970	Missing is an analysis regarding the impacts to local communities through loss of existing jobs – tourism and recreation is a substantial and growing component of the regional economy generating over \$825 million in economic output and nearly 15,000 full-time equivalent jobs in 2011. These are the types of jobs that are healthy, and could exist in perpetuity IF WE DO NOT DESTROY THE ENVIRONMENT.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lois Norrgard (16101)		
15971	Missing is an analysis of the impact to local property owners and property values. Plus the loss of opportunities to these local landowners to selling their lands in future if they would like to see their properties remain clean and provide wildlife habitat and a healthy place to live. No one wants to live near Acid Mine Drainage.	SO03
15972	The SDEIS must address mercury pollution impacts to our children.	MERC03
15973	The PolyMet mine plan also increases mercury in the Embarrass River, and sulfate pollution from the site could increase methyl mercury, the form of mercury most dangerous to people.	HU03
15974	The water data is inaccurate – the SDEIS must redo the water model in PolyMet’s mine plan.	WR003
15975	Financial assurance information to safeguard future taxpayers from financial liability is lacking in detail and provides no basis for the few figures cited in the SDEIS. The SDEIS must include a full analysis of the future costs, who would be responsible, and how this will be covered so that the citizens of Minnesota are assured they will not be caught with having to pay the inevitable clean-up bill.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Lois Peschel (54749)		
19151	I believe the environmental review process has been sound and thorough. The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all state and federal regulations.	PER34
19153	The PolyMet project would be a positive influence on economic development and employment in Northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Lois Quam (27456)		
3530	I believe that the Supplemental Draft Environmental Impact Statement is not adequate to address the potential harm to our northern Minnesota watery environment, and I encourage you to reject it.	NEPA15
<b>Sender Name (Submission ID)</b> Lois Roskoski (15963)		
929	WHEREAS, the combination of strict Minnesota regulations and PolyMet’s commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices;	PER34
939	WHEREAS, the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; ... it is anticipated that the PolyMet Mining project will require 2 million hours of labor during its construction phase; and ... will contribute millions of dollars to local cities, school districts and the State though net proceed taxes, occupation taxes, and sales tax	SO10
950	the metals that PolyMet will mine are essential for daily life – copper, nickel, cobalt, platinum, palladium and gold – found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters;	NEPA05
7346	the metals that PolyMet will mine are essential for daily life- copper, nickel, cobalt, platinum, palladium and gold- found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters	NEPA05
7346	the metals that PolyMet will mine are essential for daily life- copper, nickel, cobalt, platinum, palladium and gold- found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind turbines and catalytic converters	NEPA05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lois Roskoski (15963)		
13842	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; and ...it is anticipated that the Poly Met Mining project will require 2 million hours of labor during its construction phase	SO10
13842	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; and ...it is anticipated that the Poly Met Mining project will require 2 million hours of labor during its construction phase	SO10
13843	Poly Met Mining will contribute millions of dollars to local cities, school districts and the State though net proceed taxes, occupation taxes, and sales tax	SO10
13843	Poly Met Mining will contribute millions of dollars to local cities, school districts and the State though net proceed taxes, occupation taxes, and sales tax	SO10
18276	the City Council of the City of Virginia dtrongly supports the Poly Met Mining NorthMet Project.	GEN02
18276	the City Council of the City of Virginia dtrongly supports the Poly Met Mining NorthMet Project.	GEN02
<b>Sender Name (Submission ID)</b> Lois Schadewald (17363)		
9996	The proposed SDEIS does not mention the destruction of moose habitat...The loss of this habitat will be irreplaceable to the moose and will place additional pressure on these animals which are already at such high risk for survival here in Minnesota.	WI02
9998	If this plan goes through workers and people living in the area will be put at risk for developing mesothelioma. Those working and living in this area will be exposed to asbestos like fibers that are known to exist in these rocks.	HU05
12750	The proposed site is in a peat bog which is an irreplaceable wetland and I'm concerned about the loss of this wetland and the potential damage to the water surrounding it.	WET05
12755	how can Polymet be certain that they will be able to protect the environment in the event of another "500 year" flood like the one that just ocured in this area. ...the Polymet proposal to protect the surrounding water is to place their waste in plastic lined pits and then put barriers to groundwater seepage (if I understand right, this means clay) around it. How is this going to protect anything in the event of torrential rains?	WR202
15215	You can write anything on paper and state that you have all sorts of contingency plans, but the day to day operations themselves are already toxic enough - how can it be environmentally responsible to extract and grind 1000 pounds of rock for every 3 to 4 pounds of mineral that will be eventually sold....	PD22, PD30
15216	A wetland is about the only natural habitat that could effectively mitigate the damage done by a torrential rain event - and that is exactly what is being put up for destruction with this mining proposal.	WET24
15217	Peat is the precursor to coal, so I believe that the concern of a toxic spill similar to what happened in Tennessee and North Carolina is valid. ... Lake Superior is the largest fresh water lake in North America and it needs to be protected from harm. A breach in the containment of the tailings, like that which occurred in Tennesse and North Carolina would certainly result in devastation to Lake Superior.	WR111, WR202

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Lois Schadewald (17363)

15218 The idea that anyone could create or restore a peat bog on some other site is laughable. ... I didn't see a mention of the moose in this factsheet, but they will also lose habitat if this land exchange goes through, and they are already so threatened that the DNR won't allow a hunting season on them as there has been in past years. While there might be an argument in favor of the replacement land also providing habitat, that argument would prove meaningless for the northern long-eared bat, the wood turtle and the eastern heather vole that would all lose their lives for this project and who don't have the ability to run out of the way, as you might argue for a lynx, wolf or moose.

WI02

15219 this proposed mine is unacceptable because of the destruction of wetlands and wildlife habitat that would occur.

WET24, WI02

**Sender Name (Submission ID)**    Lora Wichser (45467)

11435 We would respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal

HU01

11436 We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Impact Assessment (HIA) be prepared under the guidance of the Minnesota Department of Health

HU01

11441 Assessment of cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River.

MERC10

11449 Assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis and an appropriate "lifetime" for exposure.

HU05

11453 Assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.

AQ08

11454 Assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.

HU01

15728 We are concerned that the proposed PolyMet NorthMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water. ... The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the PolyMet SDEIS is particularly troubling.

HU03

15729 HIAs are a tool used in the environmental review process. Environmental Impact Statements, such as the PolyMet SDEIS, are required by the National Environmental Policy Act to contain analysis of impacts on human health. However, human health is subordinated to environmental impacts, is addressed in a piecemeal fashion, and there is no examination of the social determinants of health in the SDEIS.

HU01

**Sender Name (Submission ID)**    Loree Kalliainen (42453)

6790 The proximity to both the Boundary Waters and to Lake Superior mean that the risk benefit ratio needs to lean heavily to benefit over risk.

WR111

6791 The benefits: a relatively small # of jobs for a few decades, maximum, benefit to the mining company's profit. The risks:contamination of 10% of the world's fresh water, long term risk and need for active management (for longer than the US has been a nation), damage to a heritage site. This will not help the residents in the region and has unacceptable risk of harm.

SO01

**Sender Name (Submission ID)**    Lori Johnson (3573)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lori Johnson (3573)		
408	Our water quality must not be jeopardized for a few mining jobs. The BWCA and Lake Superior are more important than the mining and the jobs it will bring.	SO01
410	This interest leads me to object to mining that has even a chance of harming our environment and water quality!	WR195
1063	It would greatly benefit an international company, permanently scare the landscape, provide only a few jobs for a short time, and forever destroy Minnesota's water quality.	SO01
1065	There are just no proven and time tested methods to treat the amount of acid that needs to be processed over such a long period of time. Once the water quality is gone, no amount of money and "insurance" from PolyMet will bring it back.	WR128
1066	The few jobs that it would bring to the Ely area would be drastically over shadowed by the NEGATVE impact the PolyMet Mining operation would have on Minnesota, Lake Superior, the Boundary Waters Canoe Area Wilderness and surrounding area lakes. Please do not jeopardize our water quality for a short 20-30 year gain.	SO01
<b>Sender Name (Submission ID)</b> Lori Olinger (45007)		
17298	A wild rice-sulfate study was recently released that could result in a change in the state's current level of 10 parts per million sulfate in waters that hold wild rice stands. I think the permit should not be issued to PolyMet until the decision is made regarding current limits and whether or not they should be updated.	PER10
17299	An organization other than PolyMet should also have responsibility for monitoring groundwater and surface water so that any problems be identified and mitigated as soon possible. If PolyMet does a good job monitoring, that is great but a separate group should also verify since so much is at stake with this project.	PD24
17300	The Wild Rice Fact sheet also stated that the PolyMet project would be expected to increase [sulfate] concentrations in the Partridge River but only by .1 percent over existing levels. The current level in the Partridge River is currently above the required limit. PolyMet should not be allowed to contribute to the problem with the Partridge River even if it is expected to be a small amount.	WR083, WR149, WR158, WR159, WR162
17301	The tribe has sovereign authority, under the Clean Water Act, to protect its wild rice from mining pollution. This project should not move forward if there is going to be any negative impact on wild rice.	PER08
17302	Before approving the PolyMet permit, the DNR should take a field trip to Butte to see first-hand the result of copper mining. Talk to the residents of Butte. Ask about the long-term financial impact it has had. They certainly never expected anything like that to happen there. I would hate to have something similar happen in Minnesota.	SO04
17303	The PolyMet site is in a water rich part of the country that is subjected to freeze and thaw conditions. This will cause extreme challenges to be able to prevent pollution.	WR198
17304	I am a concerned Minnesotan who wants to ensure that we don't overestimate the benefits of this project and underestimate the potential problems.	SO04
<b>Sender Name (Submission ID)</b> Lori Rosenthal (30769)		
13065	And while Republicans believe that clean up responsibility is nothing to address it is of the utmost importance to have those discussions now rather than dump millions of dollars on to the tax payer.	FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lori Rosenthal (30769)		
13067	We depend on you to protect our waters and uphold the laws/regulations already in place to do so.	PER06
<b>Sender Name (Submission ID)</b> Lorraine E Johnson (57239)		
17341	Expect bankruptcy at end of PolyMet operations. It's what they do, put it on the people of the state to clean things up!	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Lorraine Norrgard (11605)		
2275	Please uphold the LAMP – Zero discharge into Lake Superior!Please abide by the Lake Superior Binational Forum’s Responsible Mining recommendations.	PER27
2275	Please uphold the LAMP – Zero discharge into Lake Superior!Please abide by the Lake Superior Binational Forum’s Responsible Mining recommendations.	PER27
2276	Please identify other copper sulfate mining projects that have not had serious environmental negative impacts	PD26
2276	Please identify other copper sulfate mining projects that have not had serious environmental negative impacts	PD26
2277	360 jobs from Polymet is negligible compared to other job creation in clean industries like Cirrus, tourism, electronics, etc.	SO01
2277	360 jobs from Polymet is negligible compared to other job creation in clean industries like Cirrus, tourism, electronics, etc.	SO01
2278	Do NOT lower standards of pollution for wild rice	FIN05, FIN01
2278	Do NOT lower standards of pollution for wild rice	PER10, WR160
3256	2.Please abide by the Lake Superior Binational Forum’s Responsible Mining recommendations.	ALT15
3256	2.Please abide by the Lake Superior Binational Forum’s Responsible Mining recommendations.	ALT15
<b>Sender Name (Submission ID)</b> Lorraine Redig (39242)		
5493	This republic of the people recognizes that ALL people are created with equal rights. The PolyMet SDEIS proposal to come in to take our water that we can't live without to extract one of our natural resources for their short term profit, leaving environmental devastation behind when they have what they came for- - deserves a RAPID and FIRM "NO" answer.	SO10
5494	Our government is supposed to serve the people. EACH person who lives in the area for the next 500 years is your concern. PolyMet SDEIS doesn't care about the people rights. Profits are their priority. . In a government of JUSTICE for the PEOPLE, that means a swift NO to their request to destroy our natural resources we need to live.	SO10
<b>Sender Name (Submission ID)</b> Lory Fedo (18182)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lory Fedo (18182)		
13406	... I have spent much of my life praying for the day we can safely mine while protecting our environment so that we can rebuild our communities....I trust the science behind the SDEIS and many thousands of hours of research that have gone into it...With the jobs that this project could provide many would learn a trade, would work and feed their families, and contribute to a community.	SO10
<b>Sender Name (Submission ID)</b> Lou Ferreri (4534)		
1838	What current jobs could be lost as a result of environmental changes? For instance, will tourism be disrupted by changes in land use and traffic in the region? What is the potential economic impact of a percentage decrease in tourism?	SO04
1839	What other livelihoods could decline as a result of changes in lands and waters? For instance, could fisheries decline?	SO04
1840	Could wild rice stands decrease? If so, to what extent?	VEG04, WR157
1841	What is the estimated cost of building and maintaining the public infrastructure to support this project? For example, who builds roads and pays for maintenance? Who pays for public services to support workers and families moving to the area? What, if any, portion of this expense has PolyMet been asked to cover?	SO04
1842	What, if any, guarantee has PolyMet made to ensure that Minnesotans will be hired for mining work? Will they be union workers? What will be the wage differential between the highest paid executives and the lowest paid workers?	SO04
1843	Before granting any permits will the State of Minnesota make its own estimate of financial reassurance? And if so, will it be more in line with the Grand Portage Band of Ojibwe's estimate of \$90.5 billion set aside at the outset?	FIN05, FIN07
1844	Why would the State of Minnesota assume the risk of permitting a hard-rock mine when not a single one has ever operated without gross pollution? What is the specific cost/benefit analysis?	PER35
1845	Minnesota Rules require the site to be maintenance-free at closure. Does this mean PolyMet will be keeping the mine open for at least 500 years. What company—national or international—has been around for at least 500 years?	PD02, WR037
1846	How can financial assurance exist if a company no longer exists? What laws, international and national, might prevent PolyMet from going bankrupt, closing its doors, or otherwise failing to meet the terms of this agreement?	FIN01, FIN04
<b>Sender Name (Submission ID)</b> Louis Asher (19878)		
1491	Benefits to the community? PolyMet claims it would hire a few hundred local residents at the mine. The mine is currently proposed to operate for 20 years. This will be followed by an eternity of pollution.	SO01
13695	What I want to say is that it is absolutely insanity to assume that we can trade a few hundred jobs over twenty years for an eternity of pollution, and that's what it is going to be.	SO01
14826	PolyMet's open-pit sulfide mine would impact as much as 8,000 acres...This would be the largest permitted destruction of wetlands in Minnesota history.	WET23
14827	PolyMet's sulfide mine would create a permanent waste rock heap of 168,000,000 tons and dump 228,000,000 tons of tailings on top of a tailings basin that is already leaking and violating water quality standards.	WR070

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Louis Asher (19878)		
14828	Pollutants from PolyMet’s waste rock heaps, mine pits and tailings dump are likely to seep, leak and propagate through fractures in rock.  These pollutants include arsenic, lead, manganese and mercury, which harm human health, as well as sulfates and metals that are toxic to wild rice or aquatic species.	PD03
14829	Pollutants at the PolyMet mine site and tailings dump would exceed water quality standards for 500 hundred years if not eternity.	WR115
14830	PolyMet is suggesting that it will treat some of its mining pollution essentially forever – using untested technology.	PD32
14831	Glencore, a global commodities giant with a record of environmental, financial, and human and worker rights violations, now owns about 34.9% of PolyMet and is likely to own more. In its merger with Xstrata, Glencore committed to provide copper concentrate to China for the next 8 years. Metals and profits would go abroad, leaving pollution for local communities.	PD23
<b>Sender Name (Submission ID)</b> Louis B Asher (42847)		
8796	Sulfide mining has always led to extensive pollution and costs to taxpayers. We do not need this situation in Minnesota. Please reject the PolyMet proposal. It is full of holes and poor conclusions.	FIN10
8796	Sulfide mining has always led to extensive pollution and costs to taxpayers. We do not need this situation in Minnesota. Please reject the PolyMet proposal. It is full of holes and poor conclusions.	FIN10
18695	The history of sulfide mining is one of toxic environmental degradation. There is no evidence that sulfide mining can be done without great environmental damage – especially in a water-rich area such as NE Minnesota.	PD26
<b>Sender Name (Submission ID)</b> Louis Hilgemann (27340)		
3522	the SDEIS doesn't take into account the cumulative effects of all the sulfide ore mining proposals and expansions of mines in the area.	CU02
3523	the model used for analyzing the impact on water quality is completely erroneous. This model doesn't use the actual hydrology of the area. it is based on a much lower water quantity than truly exists, and does not account for major rain events which are sure to continue into the future (recent Duluth flood).	WR003, WR180
<b>Sender Name (Submission ID)</b> Luann LaValley (15794)		
886	I want to express my confidence in your agency to thoroughly evaluate the project and its ability to mitigate potential environmental impacts. I believe the environmental review process has been sound and thorough.	NEPA16
888	The state and federal regulators will ensure that PolyMet’s project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
894	It is commendable that the [groundwater flow] modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time [200-500 years]. It also shows the project will still meet water quality standards even that far out – all the more reason to support it.	PER34, WR190

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Luann LaValley (15794)		
895	This [groundwater flow] model demonstrates that PolyMet’s plans comply with Minnesota’s laws – some of the strictest environmental regulations in the country.	PER34
898	This is an economic opportunity right below our feet that will benefit the state’s economy for future generations. PolyMet will ... generate significant economic activity, expanding and diversifying our economy and creating hundreds of jobs that can support families and sustain communities.	SO10
901	This project would mean 2 million construction hours, 360 full-time mining jobs and more than 600 related jobs – jobs that our state needs.	SO10
903	Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	PER34
904	Based on my review and the level of detail included in the draft EIS it appears that a thorough evaluation of the project and potential impacts has been completed.	NEPA16
906	I see the value of adding these jobs into our region.	SO10
<b>Sender Name (Submission ID)</b> Lucas Lundgren (43732)		
11777	There is no company in the world that will be held to such strict environmental standards. Let PolyMet be the model for the rest of the world.	PER34
<b>Sender Name (Submission ID)</b> Lucas Runquist (54353)		
18184	this company has an excellent plan in place. It would benefit our state of Minnesota in several ways. It would be the first one in our state as well.	PD28
18185	this project could help our economy, and Northern Minnesota's water supply.	SO10
18186	If we went on through with this project, many natural resources, such as forests, lakes, etc. This would include the land that the Ojibwe people consider sacred.	CR01
<b>Sender Name (Submission ID)</b> Lucia Reid (44638)		
12230	There are very, very few jobs created and possibly 200+ years of cleanup!	SO01
12231	EVERYONE who visits Minnesota as well as residents will be exposed to the contamination created.	HU01
<b>Sender Name (Submission ID)</b> Lucinda West (57201)		
17090	Water’s precious, we shouldn’t hurt it.	WR107, WR108
<b>Sender Name (Submission ID)</b> Lucy Knoll (49934)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lucy Knoll (49934)		
16914	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR115
16915	In my opinion, the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003, WR086, WR091
16917	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	AQ01
16918	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	WR012
16919	The SDEIS must be redone to assess the impacts of heavy rains and flooding at the mine site, particularly at the “west equalization basin,” which will contain reject concentrate from plant site reverse osmosis. The SDEIS should also reveal the level of contamination that this highly toxic “basin” would contain, long after the mine shuts down.	WR202
16920	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streamMs	WR003, WR091, WR165
16921	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR017
16922	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won’t allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards... This project would violate water quality standards for generations to come.	WR189, WR202
<b>Sender Name (Submission ID)</b> Lucy Sedgwick (19529)		
13448	For instance, PolyMet claims to have made minimized -- claims to have minimized destruction of wetlands in their mining plan. They basically say, "This is the best thing we've got." However, an underground mine would actually disturb far fewer acres to access the ore in the headwaters of the St. Louis River.	ALT01
13449	. I don't think that it fully protects and replaces loss of significant habitats and species. For instance, the entire 3,013-acre mine site had been classified by the Minnesota Biological Survey as of high biodiversity significance. So basically, there are two state-endangered, two state-threatened and seven state-special concern plant species that are actually found on the mine site. So six regional forester-sensitive species -- and what that basically means is they're a federal forest plant species of concern.	VEG01, VEG02
<b>Sender Name (Submission ID)</b> Lucy Soderstrom (44629)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lucy Soderstrom (44629)		
12778	The EIS does not state how long the geomembrane covers and membranes will last, how they will be replaced and what replacement will cost. Neither does it state how long the equipment doing the treatment will last or how that will be replaced	FIN05
12782	The public does not know how much 500 years of water treatment will cost, how the company will be held responsible for centuries of costly water treatment, or how the public will be protected from liability....why isn't Minnesota requiring that the controlling company to make the commitments needed for such a massive mining operation?	PER03
12784	not all polluted water can be captured and sent for treatment. Mitigation plans for these seepages must be accounted for.	WR130
12790	Minnesota law (MN environmental Rights Act) states that "economic considerations alone shall not justify" conduct that is likely to cause significant impairment to the environment....Initiation of this project or other similar ones will likely ... drive down residential property values.	SO01
12791	While the area will benefit from increased economic activity, a move to sulfide mining at this time ... will likely negatively impact tourism	WILD02
12793	10, 20, 50 or 100 years from now, perhaps there will be scientifically and experientially proven mechanisms to extract these minerals with much lower risk to our environment and the related tourism and recreation benefits of the region.	ALT16
15914	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin spills.	PD22, PD36
15916	Glencore Xstrata will be among the primary beneficiaries of permits granted and as such should be the applicant and be subject to legal recourse by the state of MN for any failures to comply with the permits or other violations of law.	PER02
<b>Sender Name (Submission ID)</b> Luis Ortega (43987)		
7088	The short-term benefit to the few entities with economic interests in this issue should hold no weight over the right for Minnesotans to keep their environment sustainable and clean.	SO01
7089	[PolyMet] should be obligated to establish a trust fund (handled by an independent third party and mediated by the state government) to assure that Polymet will act with the highest integrity in their part of stewardship for the environment.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Luke Christenson (47295)		
14190	Please don't take a risk at permanently damaging our beautiful natural resoruces in Minnesota - it is an advantage we have in the state that will increase in value over time. It wil remain a powerful tourism draw int he years ahead.	SO02
<b>Sender Name (Submission ID)</b> Luke Jacobs (38716)		
4511	PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part of the Superior National Forest the largest designated Important Bird Area in Minnesota.	WI13
4513	In addition to this direct destruction of habitat, sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream.	AQ05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Luke Jacobs (38716)		
4514	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Luke Johnson (39438)		
7692	No other agency, person, or organization has had the time to check whether or not the 200 year model is accurate and sufficient. A 90 day public comment period is too short.	NEPA07
7701	The shapefiles in the SDEIS used to delineate the supposed USGS 100 mile swamp are not correctly georeferenced nor do the UTM's of the waypoints match those any other literature on this 100 mile swamp area. Thus DNR should correct its swamp delineation in order to more precisely predict the potential swamp impacts.	PD38, WR080
7708	I encourage new job growth. As a fish biologist and GIS technician I may be eligible to gain employment from this Polymet project, though very unlikely due to the small number of projected jobs created. The type of boom bust development this project embodies is part of the reason my generation suffers a 26% unemployment rate. I would rather pay more taxes now, on the little income I make, to fund sustainable economic development in Northeast Minnesota.	SO02
12717	360 jobs is not an adequate amount for any project, for me to consider it beneficial for my age group. A small fraction of the 360 will be Minnesotan jobs.	SO01
12722	One of the full force aspects of the Environmental Impact Statement should be exercising... The full 180-day review process.	NEPA07
13213	Minnesota is dramatically changing because of climate change and this project will contribute to the root of the problem: greenhouse gas emissions.	AIR01
<b>Sender Name (Submission ID)</b> Luke Laaveg (6334)		
10581	Since when, though, has Minnesota ever been one to act on immediate financial impulse by way of throwing the health of it's people, environment, and pride by the wayside...Please understand the depth of disaster this permit can create for centuries to come.	HU03
<b>Sender Name (Submission ID)</b> Luke Peterson (6076)		
1018	This approach balances responsibility to the environment we all enjoy and job creation and economic growth.	SO10
<b>Sender Name (Submission ID)</b> Lura Wilson (21029)		
1864	If this project goes through it will destroy this beautiful wilderness that we enjoy and need, including jobs! This area depends highly on tourism.	SO02
1865	Tourism in this area will last a life time where the mining project, if allowed, will only provide temporary jobs and potentially ruin the landscape FOREVER.	SO02
1866	SDEIS admits that PolyMet would directly destroy thousands of acres of wetlands in the Superior National forest not to mention our drinking water, wildlife, including moose whose population is already at risk, birds, fish, and eventually even our big Lake Superior.	WET24, WI01, WR042, WR111, WR112

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Lura Wilson (21029)		
12676	This area depends highly on tourism. My husband and I run a small lodging business and a Bed and Breakfast where people come from all over the world to enjoy. If Polymet is allowed to mine it will destroy our business and many others. Tourism in this area will last a life time where the mining project, if allowed, will only provide temporary jobs and potentially ruin the landscape FOREVER.	SO02
12678	I have heard the plans for clean up but that will cost our children and grandchild dearly and realistically there is no guarantee that the destruction caused by mining can be cleaned up.	FIN01
12679	SDEIS admits that PolyMet would directly destroy thousands of acres of wetlands in the Superior National forest not to mention our drinking water, wildlife, including moose whose population is already at risk, birds, fish, and eventually even our big Lake Superior	WI01
16224	I personal believe we will lose the beauty for ever along with many jobs if this project comes to fruition.	SO01
<b>Sender Name (Submission ID)</b> Lydia Kulesov (15414)		
13817	A handful of local jobs for a relatively short amount of time is just not worth the long-term consequences of environmental devastation and threat to all life	PER35
<b>Sender Name (Submission ID)</b> Lydia Morken (50018)		
12981	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Lydia Neus (54197)		
17233	Though this may bring jobs to the area (for a time) and may increase the amount of metals, at what cost is this happening to my world?... If this area is changed astronomically and the jobs produced may not last.	SO01
17235	The beginning of this sulfuric mining will degrade not only the water supply, but also the tourism that the area often depends on.	WR107, WR108
<b>Sender Name (Submission ID)</b> Lyle Bradley (18168)		
3886	Sulfide mining brings sulfuric acid. Have you ever tried swimming in sulfuric acid? Now not only sulfuric acid but also from sulfide mining we get a lot of other good ones, like a little mercury and a little so on.	WR001
<b>Sender Name (Submission ID)</b> Lyle Salmi (15241)		
386	To consider trading 20 years of jobs for 500 years or more of pollution is not acceptable	WR115, WR195
388	The so -called assurances from the DNR for the parent company to provide....what specifically are they?... So who then pays? Us ...the taxpayers, to clean up the mess, if it can even be restored.	FIN01
389	I own a cabin on Bear Island Lake that has been in my family since 1962. I do not wish to see this area become a corporate wasteland.	LU06
<b>Sender Name (Submission ID)</b> Lyn Yount (46868)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lyn Yount (46868)		
8612	Please do not authorize PolyMet’s draft mine plan. There is too much at stake to accept a plan that does not take into account, and will damage the health of Minnesotan citizens, will cause damage to already stressed Lynx and Moose populations as well as other wildlife, and will poison and destroy wetlands, forest and our water table. We don’t want more air and water pollution, and even if PolyMet does manage to provide so called “safeguards” against large scale mercury or asbestos disasters, no mine is able to cause no pollution.	SO02
8613	Every water source, table, creek, lake, pond, and wetland in the area of the mine will be affected, with wide reaching effects to the aquifer. Whether from direct pollution and chemical runoff or spills, or poisoned by the chemicals in the air from the machines and mining extraction processes, Minnesota’s water will be harmed, and the people, animals and plants that depend on it as well.	WR111, WR115
8614	PolyMet will make a great deal of money, share a comparatively small amount with their “new employees,” and leave Minnesota scarred, dirty, with centuries of cleanup, especially water treatment, untold health issues, and with all the bills.	SO02
<b>Sender Name (Submission ID)</b> Lynda Fedeler (38129)		
14545	The PolyMet NorthMet SDEIS understates the impact of the proposal on greenhouse gas emissions and does not account for reasonable mitigation measures for the carbon emissions associated with the project.	AIR01
14546	The PolyMet SDEIS argues that the direct and indirect increase in carbon dioxide emissions from the project would be to increase Minnesota CO2 emissions by less than 0.5%. However, the project would rely heavily on electricity from the most coal-heavy electrical utility in Minnesota, and should be evaluated against the backdrop of Minnesota's goals to reduce greenhouse gas emissions 15% from 2005 by 2015, and 30% from 2005 levels by 2025.	AIR01
14547	Over the proposed life of the NorthMet mine, its proportion of Minnesota's greenhouse gas emissions will increase, unless there are additional mitigation measures added to the mine plan.	AIR01
14548	Revise the SDEIS to specify the plant sources of electrical power drawn on by the PolyMet NorthMet project and the proportion of coal, natural gas, hydropower, wind, solar, and other forms of electricity generation.	PD39
14549	Revise the SDEIS to consider on-site, carbon free alternatives like on-site wind and solar for a portion of the electrical power needed by the NorthMet project.	ALT13
14550	Revise the SDEIS to analyze the feasibility of purchasing electrical power generated by wind, solar, and hydropower for a portion of the electrical needs of the NorthMet project.	ALT13
<b>Sender Name (Submission ID)</b> Lynda Haemig (41660)		
2154	Maybe denying this permit will force the mining companies to research alternative methods of extracting the metals.	PD32
<b>Sender Name (Submission ID)</b> Lynda McDonnell (39771)		
6798	And there's a great risk that the damage and cost of clean-up could far exceed the value of several dozen jobs for 20 years.	SO01
14247	Sulfide mining releases acid and heavy metals that harm aquatic plants, fish and waterfowl.	WR001, WR113

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Lynda McDonnell (39771)		
14248	I recognize that northeastern Minnesota badly needs good jobs for its people and communities. But increased spending for high-speed internet service and other strategic investments seems far wiser and more productive than authorizing a mining project that could endanger our water, forests, animals and people.	SO01
<b>Sender Name (Submission ID)</b> Lynda Withbroe (54776)		
19477	Only 360 jobs will be created while hundreds of years of damage will result.	SO01
19479	I am writing to ask you to reject the PolyMet mine's proposal / mine in one of our state's greatest natural resources, the BWCA.	WILD02
<b>Sender Name (Submission ID)</b> Lynden Gerdes (36800)		
8638	NorthMet would emit 4.6 pounds of mercury into the air from their operations every year, and the coal power they rely on would add even more. The NorthMet mine plan also increases mercury in the Embarrass River, and sulfate pollution from the site could increase methylmercury, the form of mercury most dangerous to people. (Mining Truth).	AIR02, MERC08
8647	Maybe it is simple; just have PolyMet assure you they will restore the landscape as they received it. Give them maybe 100 years. Ecosystem function, biological diversity, aquatic life, and species composition at least as good as they inherited it. I am not talking about spreading a clover mix on a wetlands tailings pile and calling it restored.	VEG03, VEG05
8656	Some Tribal and GLIFWC analyses and concerns do not appear to be fully valued or addressed in the SDEIS (Chapter 8 and Appendix C), including mercury levels, water models, manoomin (wild rice) standards, wetlands, waterfowl concerns, etc.	VEG04, WET24, WI04, WR115, WR160, WR189
8664	If more time would have been granted for public review I may have been able to provide a more detailed response.	NEPA07
12377	Fractures in the bedrock are highly likely to currently exist in the project area or potentially result from mining activities. We can't trust a dated bedrock study on this critical issue when the consequences of being wrong in the analysis allows contaminated waters to move deeply through the bedrock and aquifers to the Rainy River watershed and local water tables.	WR011, WR012, WR014, WR016, WR061, WR071, WR085, WR087, WR090, WR099, WR168, WR169
12378	The NorthMet water model assumes that there is little groundwater moving through the site. The result is that the model shows water moving very slowly, and pollutants sticking to soil instead of moving with the water. DNR hydrology data show that the NorthMet water model significantly understates the amount of water flowing in the nearby Partridge River.	WR003
12382	There are many acres of assorted uplands and wetlands within the project area recognized and mapped as having Biological Significance (Minnesota Biological Survey), including the 100 Mile Swamp. Some of the native plant communities in the project area are considered rare or of special concern in the state. Rare species are present including a significant, large population of Floating marsh marigold ( <i>Caltha natans</i> ) with habitat and populations to be destroyed.	VEG01, VEG02
12383	Moose, lynx and other species and their habitats will be will be impacted.	WI01, WI02
12384	Waterflow and water quality will be greatly altered in the landscape and will negatively affect many more wetlands, uplands and waters in the greater area than currently acknowledged in the SDEIS). Current acreages stated below are likely underestimated.	PD03, WET10, WET24

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Lynden Gerdes (36800)	
12390	The NorthMet mine plan also increases mercury in the Embarrass River, and sulfate pollution from the site could increase methylmercury, the form of mercury most dangerous to people. (Mining Truth).	MERC23
12391	NorthMet would emit 707,342 metric tons of carbon dioxide into the atmosphere every year. This would contradict Minnesota’s goal to reduce carbon emissions. The Minnesota Next Generation Energy Act set a goal of reducing Minnesota’s greenhouse gas emissions 15% from 2005 levels by the year 2015, and 30% from 2005 levels by 2025. Minnesota is uniquely vulnerable to climate change, particularly the boreal forest of northern Minnesota” (Mining Truth).	AIR02
12404	As noted earlier, there is no dollar amount that can substitute for the existing, ecologically functioning landscape that would be lost and degraded if these SNF lands are lost and the mining project proceeds. My point being, regardless of what you ask of PolyMet, in the end you are not likely to get it. Whether it is fully restored ecosystems or lump sums of money to treat water in an otherwise devastated landscape future generations will pay the price.	SO01
12413	Some Tribal and GLIFWC analyses and concerns do not appear to be fully valued or addressed in the SDEIS (Chapter 8 and Appendix C), including mercury levels, water models, manoomin (wild rice) standards, wetlands, waterfowl concerns, etc. I don’t understand the specifics of 1854 Treaty or the rights of the Fond Du Lac Reservation downstream of the proposed mine but destroying and degrading their tribal lands and way of life truly concerns me.	CR01
13928	All the lighting associated with this project will have significant impacts to not only residents but all those global citizens that will lose this local opportunity to have an experience that is becoming quite rare.	LU06
13929	Earth tremor – For the lack of another term, I am using this referring to how the earth shakes and windows rattle when the earth’s bedrock is being blasted. This is currently happening as a result of the Harris Lake quarry and I suspect the Babbitt mines. This issue needs to be further addressed for I feel the impacts are much more distant from the mines than what is currently being acknowledged. The social, economic (including land values, property values, etc.) and environmental effects of this needs further assessment and publicly addressed.	N05
13930	I also request the long-term psychological effects of light pollution (especially to those that have lost dark skies in their living environments) and the psychological effects of human caused earth tremor receive full attention, discussion and disclosure relative to the short and long term effects of this project. Conversely, I request the long-term benefits of the dark skies in this part of Minnesota are assessed for their contributions to society and our economy.	LU04, SO04
14567	I would have more to comment on if more time had been allowed for public SDEIS review.	NEPA07
14881	I believe the Superior National Forest (SNF) wants to steward our National Forest lands and would also be interested in acquiring industrial owned lands that would potentially complement the Forests long term forest management and conservation goals. Pursue some of these acres for acquisition if at all possible but don’t trade away a core portion of our Forest to accomplish it.	LAN06, WILD03
14913	Minnesota law requires that a closed mine site be “maintenance free.” It is clearly presented in the SDEIS that water pollution will be long term, likely for hundreds or more years and likely require active treatment. One can’t assume that passive treatment will become a reality, if so, it likely won’t occur before environmental damage has already occurred and becomes widespread.	PER04, WR137

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lynden Gerdes (36800)		
16507	The United States Forest Service (USFS) should not allow for the permanent destruction and degradation of hundreds - thousands of acres of our National Forests lands and waters...One can analytically isolate these Forest lands from all other lands and waters in the area but we know they are all critically connected and complement each other and function as a whole, especially when assessing biological biodiversity, climate change, and ecosystem health at various scales..."Land Exchange" is very misleading. Our National Forest lands would be traded to industry and allowed to be permanently destroyed.	LAN01
16509	The Bureau of Land Management has very different goals and objectives regarding both surface resources and mineral extraction (as observed on BLM lands in our southwestern states) and their management approaches and practices should not supersede the long established ecosystem goals the SNF has tried to achieve balancing the values of forest, wildlife and recreation.	PER26
16512	The NorthMet water model assumes that there is little groundwater moving through the site. The result is that the model shows water moving very slowly, and pollutants sticking to soil instead of moving with the water. DNR hydrology data show that the NorthMet water model significantly understates the amount of water flowing in the nearby Partridge River. If this information is wrong, predictions about water pollution are in question. If the model is incorrect, and there is more water flowing through the site than it assumes, the polluted water from pits and waste rock will move more easily through the soil, and reach lakes and rivers more quickly. The water could also carry more pollutants than the NorthMet model predicts.	WR003, WR005, WR006, WR165
16513	when so much is at long term environmental risk, they provide not much more than a best guess. ... Questions centered around the inaccuracies of the water model place serious doubt on the validity of the entire analysis.	PD29
16517	It is bewildering that the SDEIS can generally state the air, water and noise levels resulting from this project and their cumulative effects are acceptable.	CU11
16518	Levels of energy consumption and contributions to climate change are unacceptable.	AIR01
<b>Sender Name (Submission ID)</b> Lynette Peterson (54490)		
18035	The long term health effects of allowing the mining proposed by Polymet are substantial. More research is needed as well as more answers.	HU01, HU03
<b>Sender Name (Submission ID)</b> Lynn Boggie (54694)		
17799	Sulfide mines ALWAYS pollute. Sulfide mines ALWAYS end up costing the tax payers. After the mining is done "they" ALWAYS mysteriously go bankrupt and can't pay the costs for clean up which takes FOREVER.	FIN01
17801	you know the facts of why the Poly Met SDEIS is inadequate. It doesn't analyze the effect on pollution; on workers health; on drinking water; and there are the arsenic and mercury issues.	HU01
17803	We live downstream from the proposed PolyMet project. Will our water "change" in my lifetime? How many years will it take, do you tb.i.nf, before we can't drink our precious water?	WR036
17804	Yes, jobs are important, but not at the cost of the eternal and irrefutable damage to our lands and waters. Not at the cost of our health. We who live in this area are the ones who will pay dearly.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lynn Boggie (54694)		
17806	I have lost faith in the MDNR and USFS. I've seen too many decisions that are made for monetary gain rather than environmental propriety. And there is a long history where federal agencies short-change the taxpayers to allow mining. I am asking these agencies to bring it back around and do the right thing. ... Don't allow Poly Met a state permit to mine.	PER35
17808	Reject the SDEIS as inadequate and the PolyMet project as environmentally harmful.	NEPA09
<b>Sender Name (Submission ID)</b> Lynn Clark Pegg (11541)		
2493	Those of us who live on this freshwater spit [ Park Point] of land are acutely aware of the water that surrounds us – St. Louis River which brings the water from the north into the Duluth harbor, and ultimately into Lake Superior, which contains 10% of all the fresh water on the earth. This water is a precious resource and is essential to the health of our ecosystem.	WR195
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2494	...the PolyMet SDEIS cumulative analysis of water quality impacts is inadequate in determining whether the PolyMet mine is environmentally harmful. The SDEIS has an artificially limited scope, focusing on just the Partridge and Embarrass Rivers, and excluding the St. Louis River.	CU01
2494	...the PolyMet SDEIS cumulative analysis of water quality impacts is inadequate in determining whether the PolyMet mine is environmentally harmful. The SDEIS has an artificially limited scope, focusing on just the Partridge and Embarrass Rivers, and excluding the St. Louis River.	CU01
2495	The PolyMet Project would increase mercury in the Embarrass River and could increase mercury methylation near the mine site as well. Increases in mercury or sulfates at PolyMet could increase mercury in fish in the St. Louis River. Both existing LTV tailings seeps and other mine discharges flowing into the St. Louis River also carry high levels of specific conductance, which the EPA has found can be toxic to fish. Furthermore, Tribal research shows that specific conductance is a water chemistry "signature" for mining discharge that can take more than 100 miles to dissipate.	MERC02
2495	The PolyMet Project would increase mercury in the Embarrass River and could increase mercury methylation near the mine site as well. Increases in mercury or sulfates at PolyMet could increase mercury in fish in the St. Louis River. Both existing LTV tailings seeps and other mine discharges flowing into the St. Louis River also carry high levels of specific conductance, which the EPA has found can be toxic to fish. Furthermore, Tribal research shows that specific conductance is a water chemistry "signature" for mining discharge that can take more than 100 miles to dissipate.	MERC02
2496	There needs to be a specific analysis of the impacts on mercury contamination of fish and the specific conductance levels on fish on all rivers and waterways of the Lake Superior basin, all the way down on the St. Louis River, through the Fond du Lac tribal water, to Lake Superior. The fish are the "canary" in this mining project: as the fish go, so go the watershed and the ecosystem. We all are affected and we all need to be engaged in protecting our precious waters.	MERC02
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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Lynn Erkelenz (21783)		
9527	Hi -This is Lynn with Midwest Radio in Hibbing - can someone contact me? 263-7531	RFI01
<b>Sender Name (Submission ID)</b> Lynn Evenson (3524)		
232	nowhere in the world, at no time, in no way, has acid mine drainage been successfully contained long term. It cannot be done; this has been proven beyond any doubt.	PD26
233	This type of mine waste cannot be contained. It is that simple and that black-and-white. The companies involved in sulfide mining know this; that's why they dissolve, go bankrupt (they say) or otherwise disappear when things look like they're about to go wrong. That way, they can never be held accountable (read, made to pay to clean up their mess) for the widely documented disasters they leave behind when they close their mines.	FIN01
2159	The runoff can be made safe, but this would require spending a great deal of money. If this money is not on the table before permits are issued, it will not appear.	FIN01
<b>Sender Name (Submission ID)</b> Lynn Glesne (41701)		
2165	When we think of what Minnesota was 500 years ago, committing to 500 years in the future sounds unbelievable.	WR195
<b>Sender Name (Submission ID)</b> lynn grano (11238)		
689	And yet the proposed PolyMet project assumes a level of “financial assurance” stability going forward over the next 500 years that has never existed in history, or for even much shorter durations of time.	FIN01
697	Given that the SDEIS concludes that it is possible that mechanical water treatment might well be needed “for the duration of 200 years at the mine site and 500 years at the plant site” what possible “financial assurance” as r	FIN01
725	Given the course of history, how could anyone likely conclude that PolyMet (or any provider of its ‘financial assurance’) will be around in fifty years, let alone 500, to provide ‘adaptive management’ or has sufficiently pre-paid someone else to adequately address its on-going into the distant future mess and ensuing environmental liabilities?	FIN01
1574	The SDEIS is woefully deficient in failing to comprehensively address this issue (financial assurance) now.	FIN13
1575	Why then does PolyMet get to profit on this State’s copper-nickel deposits (at least for 20 years) when the State’s subsequent twenty-four generations (next 480 years) will likely get left holding the bag for environmental liabilities the mining company creates and leaves behind?	FIN10
1576	If one wants to quickly grasp the inherent absurdity of the proposed project, all that’s required is to ask a simple question, namely--‘what financial assurance instruments in operation in the year 1514 still function today?’ Answer, none.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Lynn Voss (6020)		
1527	The jobs are necessary, our economy needs it	SO10
1528	I have full confidence in the DNR's ability to do the research and monitor	NEPA16

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> LynnAnne Vesper (38810)		
4977	My primary concern is in the area of economic impacts, mainly in the area of financial assurance. Polymet routinely cites figures indicating how much they have spent so far on the permitting process, as if this number should justify the issuance of a permit. The DNR and other agencies have a responsibility to see to it that issues are addressed during the planning phase; otherwise no permit should be issued, regardless of the amount Polymet has spent on analysis.	FIN08
17011	Further, regarding the proposed land exchange, the Forest Supervisor bears the responsibility for determining if the proposed land exchange benefits the public. The Forest Supervisor must make the determination that the land exchange is for the express purpose of directly furthering the financial interests of private and foreign economic interests and is clearly NOT in the public interest.	LAN01
17017	These wetlands created for the purpose of the wetland crediting system are by far inferior to those created over many hundreds if not thousands of years by natural processes. The artificiality of the wetland crediting system must be taken into consideration when determining the quality and quantity of wetlands to be exchanged for wetlands permanently destroyed or disabled by mining processes.	WET04
<b>Sender Name (Submission ID)</b> Lynne Markus (54810)		
18346	I am especially concerned that the state is considering a land trade of lowland coniferous forest for lesser value coniferous swamp forest which is not an even trade and therefore, not in the best interest of the public.	LAN03
<b>Sender Name (Submission ID)</b> M Negus (47383)		
10188	[EIS] does not go into the detail necessary to answer critical questions of sulfide run-off and potential long term effects on the aquatic environment (wild rice, invertebrate, fish and wildlife).	VEG04, WI01
10190	At the very least this company under the supervision of the MNDNR needs answer the critical and unanswered questions on sulfide mining and potential for sulfide runoff posed by the chemical and ecological experts.	WR115
10196	[EIS] needs to expand on the contingency plans which are vague in the EIS, should an unforeseen event such as a train derailment, extreme precipitation event, or explosion occurs.	PD22, PD36
10198	Details need to be shared with the public on what process and how much funding will be set aside to address the long term clean up after this main development occurs and the mine is no longer operating and the company has either been sold, dismantled or gone into bankruptcy.	FIN01
10199	Allowing the Poly-met mine with only the information provided in the EIS appears to be another example of short sighted gains vs long term detrimental consequences. I hope you look out for future generations, not just the short term job gains that will only last 15-20 years at the most.	SO01
<b>Sender Name (Submission ID)</b> M.T. Mason (43081)		
15334	We should not trade the unpredictable economic viability of copper/nickel mining for our current tourism trade which is based on Minnesota's water-economy.	SO02
<b>Sender Name (Submission ID)</b> Mac Meade (39336)		
12806	As protectors of all Minnesota resources, we should wait until we are as close to 100% sure as we can be that the operation will cause no environmental harm. Technology will catch up to this, and there will be cost-effective mining techniques that will provide proven safeguards. If we demand absolute proof, the value of the resource and potential for profit will drive the research and technology until absolute proof is achieved.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Mac Meade (39336)	
12815	As protectors of all Minnesota resources, we should wait until we are as close to 100% sure as we can be that the operation will cause no environmental harm. Technology will catch up to this, and there will be cost-effective mining techniques that will provide proven safeguards.	SO10
<b>Sender Name (Submission ID)</b>	Maddy Greeley (54184)	
16852	Your killing the fish because of the pollutes H2O with sulfuric acid (PH).	AQ08
16853	Your taking away fishing and tourism when will make it lose money.	SO02
17638	[PolyMet] is going to build this mine then get what you want in 200um years then leave a huge environmental problem.	SO02
<b>Sender Name (Submission ID)</b>	Madeline Baird (21507)	
1475	Water quality in MN is too important to take a risk [with the NorthMet Project].	WR111, WR195
1478	Environmentally Unsatisfactory (EU) indicates that our review has identified adverse environmental impacts that are of sufficient magnitude that the EPA believes the proposed action must not proceed. Why ask for a study to just ignore it?	NEPA15
<b>Sender Name (Submission ID)</b>	Madeline Gardner (57982)	
19879	This project will pollute our valuable water resources & cause hundreds of yrs of cleanup. The risk is not worth it.	SO01
<b>Sender Name (Submission ID)</b>	Madeline Seveland (9799)	
12978	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b>	Madelyn (47657)	
7734	[This area's] degradation is not worth the benefits this project proposes.	SO01
15878	I will not stand for the destruction of an environment that means so much to me, my family, and many other Minnesotans. This land has been the backdrop of countless family vacations and memories for me. Its degradation is not worth the benefits this project proposes.	SO01
<b>Sender Name (Submission ID)</b>	Madelyn Larsin (43069)	
15417	The Boundary Waters of Minnesota is a treasured part of our state. Part of its value lies in the beauty of its untouched nature. I will not stand for the destruction of an environment that means so much to me, my family, and many other Minnesotans. This land has been the backdrop of countless family vacations and memories for me. Its degradation is not worth the benefits this project proposes.	WILD02
<b>Sender Name (Submission ID)</b>	Madison Kolbow (15240)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Madison Kolbow (15240)		
1205	If Polymet starts mining in northern Minnesota there are many potential threats to humans, fish, birds, and wetlands. ... Overall, mining in this area could have a very drastic effect on wildlife, animal habitat, and human health.	GEN03
1206	Mining by-products like arsenic, manganese, and thallium have been shown to increase the risk of cancer to humans.	AIR10
1207	Mining is done below the water table, so it is easy for groundwater to become polluted. When groundwater becomes polluted it can lead to drinking water also being contaminated.	WR041
1208	the recovery process will take a long time. If mining takes place the process to recover the land and water could take decades.	PD03
1209	If the land gets disturbed PolyMet plans to re-seed with native plant species, where they could, but some non-native species may be used.	VEG05
1210	A popular travel destination, The Boundary Waters,...could be affected by Polymet mining. The Boundary Waters are very close to where the mining could potentially take place. ... Mining in this area could ruin the place that families and friends have gathered to enjoy for years.	WILD02
1211	Since the mines would be so close to this travel destination water pollution would be a huge threat to the Boundary Waters.	WR111
1817	Overall, mining in this area could have a very drastic effect on wildlife, animal habitat, and human health.	HU03, WI01, WI02
<b>Sender Name (Submission ID)</b> Maggie Nelson (47988)		
17347	Further more after inflation of 500 years, the money put aside would not be enough to cover the cost of the regulation and clean up for that period of time.	FIN08
<b>Sender Name (Submission ID)</b> Magree Melvyn (15288)		
421	Compare this with PolyMet's assets of \$93,215,000 and liabilities of \$136,920,000. ... Will they have the means to pay for any damages they might cause? How long will it be before they have sufficient revenue to balance the books? How would \$132,000 or even \$93,215,000 provide for cleanup after the mine was closed up, even for a year much less 200 to 500 years?	WR037
<b>Sender Name (Submission ID)</b> Mahyar Sorour (54542)		
19176	It pains me to see such a beautiful place destroyed by greed and pollution. Please help preserve this peaceful and captivating land of nature! Creating more jobs isn't worth destroying the land, please save it!	LU04
<b>Sender Name (Submission ID)</b> Maija Schaefer (14071)		
145	I feel that the Supplemental Draft Environmental Impact Statement(SDEIS) lacks vital information about long-term water treatment, and how this treatment will be funded.	WR035, WR128, WR143
146	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
<b>Sender Name (Submission ID)</b> Maja Black (45921)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Maja Black (45921)		
10326	if we look back to the SDEIS, we can find beyond a reasonable doubt cause to postpone the mine. It is one thing to trust the DNR to identify the potential impacts of the mine, it is another thing to trust the DNR to interpret this information adequately, in a way that keeps us, as the residents and caretakers of this land, safe.	NEPA08
10331	Those who are speaking in defense of the Boundary Waters are not only concerned about the aesthetic beauty of a wilderness area. If the toxic water projected to be treated for upwards of 500 years were to be released in an accident, it not only would destroy the Boundary Waters, but it would destroy the watershed that we all rely on to have good, clean water. In the coming years, having potable water is going to become a more expensive problem, and the resource that the lakes of Minnesota provide is invaluable to protect.	WILD02
10334	...the wilderness of the Boundary Waters has helped to create an entire economy based upon eco-tourism and the people who visit Northern Minnesota every year in search for a wilderness experience. If that wilderness were to be contaminated, who would come to visit it and support the businesses that exist on tourist profits?	SO02
10338	the SDEIS states some very scary predictions...wouldn't it be safer and more beneficial to wait until we have a foolproof method of extracting the material without endangering our watershed?... I don't believe that the intended procedures of this mine are safe.	PD32, WR195
<b>Sender Name (Submission ID)</b> Malcolm McCutcheon (7682)		
817	Chancing a long term contamination of Lake Superior, the largest fresh water source in the country for a 20 year mining project seems illogical. Because of its size and volume the Lake cannot cleanse itself of contamination the way shallower Great Lakes can.	WR111
<b>Sender Name (Submission ID)</b> Mandy Marshall (42551)		
6870	I DO NOT support the mining project. It seems it will disrupt the wildlife (those whose species are threatened and not) & possible watersheds more that it could benefit with temporary jobs. If ( like 75% of other companies) water control fails, it could cost the wildlife and taxpayers greatly to try and fix the issue.	FIN01, SO01, WI01
<b>Sender Name (Submission ID)</b> Mao Vang (54232)		
16805	The environmental Impact Statement also should that there are high levels of toxic in the water after the mining. That'll stay for about 500 years and will cost billions of dollars to clean up and which is impossible because when sulfuric acid gest into the water it can't be removed. So it'll just keep flowing down the streams and lakes. Which will kill off many species of plants and animals.	WR001, WR113
16806	the map that was done that [shows] the drainage at the mining not affecting other lakes and streams in the marsh. From this view, people would mine in okay. But it actually not because the map is wrong which can fool more who don't know the natural lakes.	PD38
<b>Sender Name (Submission ID)</b> Mao Vue (54233)		
16808	The map in the environmental impact statement is wrong. PolyMet people drew maps of the one hundred mile swamp; their map compared with the U.S. National Atlas shows that the PolyMet has left out half of the swamp. They are immorally lying just to get jobs and it is affecting the BWCA in a very negative way.	PD38

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mao Vue (54233)		
16809	The BWCA is left unprotected from acid mine drainage. A place with water so pure like the BWCA being polluted would be very sad and I don't want that to happen because once it is polluted it'll be impossible to recover. In order to protect the BWCA I'll need your help. Possible solutions to fix this issue are: correct the maps that PolyMet has created, test the water in Langley Creek to make sure there's no pollution seeping through the swamp.	WR080, WR081, WR111
<b>Sender Name (Submission ID)</b> Marc Fink (18321)		
4125	... Minnesota law requires that mines leave an area maintenance free at the time of closure. The PolyMet Mine, however, mechanical water treatment would be needed for more than 200 years at the mine site and over 500 years at the plant site, which would be in violation of state law.	PER04
4126	The Clean Water Act does not allow permits to be issued where a discharge can cause or contribute to water quality violations. The areas downstream of the proposed site are already in violation of water quality standards; and, therefore, no more pollution can be allowed.	PER09
4127	The Clean Water Act sets forth a pretty straightforward program where you first clean up existing pollution before you can allow further pollution. And up there there is already mercury and sulfate pollution.	PER09
4129	Under the National Environmental Policy Act agencies are required to look at the cumulative impacts of the projects. As we all know, there's a lot of mining projects up there that have already had significant impacts on the area and downstream into the St. Louis River Watershed. I believe the limited impact analysis under NEPA needs to include the St. Louis Watershed to encompass all this pollution.	CU01
12826	Unfortunately the EIS is completely silent as to how PolyMet would fund the hundreds of years of mitigation repair and maintenance for the hundreds of years of pollution control.	FIN05, FIN11
12827	The National Environmental Policy Act Limited Impact Analysis for Moose completely does not mention the species whatsoever. That's a glaring defect in the analysis. Research shows moose are declining dramatically across the state and yet they are not even mentioned.	WI01
<b>Sender Name (Submission ID)</b> Marc McLennan (57623)		
19376	We need Polymet to get the mining industry back where it used to be.	GEN02
<b>Sender Name (Submission ID)</b> Marci Hoff (47066)		
11183	We believe that the PolyMet project could destroy or severely damage irreplaceable wetlands in the St. Louis River watershed.	WET24
11184	The fish habitat, natural wild rice, and tribal resources are threatened by PolyMet.	VEG04
11186	We are very concerned that this project would be harmful to drinking water supplies and put human health at risk due to increased arsenic and other contaminants. ...The pollution and need for pollution treatment are major concerns...We are aware of the fact that sulfide mines located in water-rich environments, like Minnesota, have polluted surface or groundwater with acid drainage and/or toxic metals.	WR041, WR140, WR142
11187	We are very concerned that this project would be harmful to drinking water supplies and put human health at risk due to increased arsenic and other contaminants.	HU03
<b>Sender Name (Submission ID)</b> Marco Good (42922)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Marco Good (42922)		
9601	Even if...sulfates and sulfides somehow do not mix with oxygen (as PolyMet's EIS contends they will magically be isolated from it in the surface waters and aquifers after they leave the tailings ponds through overflow or leakage through liners that inevitably leak) these sulfur bearing compounds will surely methylate mercury wherever they reside in wetlands, compounding the mercury poisoning our waterways and all the aquatic life that lives in our watershed downstream from the proposed site.	AQ12, AQ28
9602	PolyMet's promise to contain and treat with reverse osmosis the trillions of gallons of pure water they will contaminate (not may... nor could...) our surface waters and aquifers for thousands, not hundreds of years-- is nothing but a lie, like all the mining company lies that have gone before it.	WR035, WR128
9604	Like all mining companies before them... PolyMet will not honor their obligation to do anything past the date they close their operations and declare bankruptcy, as they have always done.	FIN01
9612	There is no way to ever clean up or remediate disasters like this, and if our government permits them, they will have only themselves to blame for accepting the bribes these conglomerates have given them, whether they come under the table, or with the complicity of the "Citizens United" decision by the Roberts Court, in the form of "PAC contributions".	NEPA18
9614	the Treaties our forebears made with the original human beings of this beautiful bountiful State are promises we ought to keep, which we have never done. It is illegal, unlawful, and immoral to further deny Anishinabe ("Ojibwa") and Dakota ("Sioux") people their rights to hunt and gather unpolluted fish, wildlife, medicinal plants, and Manoomin ("wild rice") in the ceded territories, a denial and an abrogation of those treaties which antedate and supersede all subsequent legal and local manipulations of the legislature (who seems only to regard the corporate agenda) which such mining will surely accelerate.	PER08
9618	Dear officials of the DNR, I ask only that you re-examine your mission statement which says to Protect, Conserve, Manage and Regulate, NOT to exploit or advocate for the institution of extractive resource colonies by multinational corporations. I ask that you consider the value of resources we have and enjoy, the living, breathing Land, Water, and Air, which are too limited to consider ruining them forever for short term profit	NEPA15
<b>Sender Name (Submission ID)</b> Marcus Imes (40098)		
6459	I know the Iron range needs jobs, but this project will only provide jobs for around 20 years and will leave us with cleanup for centuries.	SO01
6460	Polymet has a decent plan for containing the acidic and heavy metal waste, but few things in life go perfectly to plan... my concern about the mitigation plan; if any little thing goes wrong, a lot of toxic water or slurry will be released into a nearly pristine watershed, which is irreversible. I believe the cleanup plan calls for 200-400 years of water treatment.	WR132
6461	I encourage the DNR to deny the permit, or get a very very substantial up front payment to ensure the future health of our environment (a larger payment than currently proposed).	FIN08
<b>Sender Name (Submission ID)</b> Maren Anderson (41275)		
9313	There are not enough jobs that will be created to validate the absolute destruction of our natural resources.	SO01
<b>Sender Name (Submission ID)</b> Margaret (18125)		
3430	Mining brings economic opportunity to places like the Arrowhead, Hoyt Lakes. The opportunities for a quality of life here that is too often only available in the largest cities. (Inaudible) tremendous opportunity to create high quality employment for people living a high quality of life here.	SO10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Margaret (18125)	
13505	(inaudible) after the professional and public review of the PolyMet EIS through this process I am a confident state and federal agencies (inaudible) and confident because I know our agencies carry out regulatory responsibilities competently and thoroughly and with the highest integrity.	NEPA16
<b>Sender Name (Submission ID)</b>	Margaret a. Gillen (39916)	
14293	I have lived in the Twin Cities for 23 years and I love the beautiful lakes, trees, wildlife, and clean air. My family has camped in the Boundary Waters and experienced its beauty and peacefulness. We cannot afford to have this resource polluted by mining companies who lamely promote job growth but are really counting profits.	WILD02
<b>Sender Name (Submission ID)</b>	Margaret A. Redmond (39221)	
6046	There are several issues in the SDEIS that leave me very concerned regarding its basic usefulness as a tool to even assess the CURRENT status of the areas to be mined and to be utilized for waste rock disposal and for treatment ponds. Those insufficiencies lead me to real disbelief about its valid use as a predictive instrument for future conditions once mining actually begins.	PD01
6047	C. Although the DNR (in its other divisions, eg Forestry) does acknowledge the reality of climate change, this SDEIS and the models it is built on barely acknowledge any possible impacts. Clearly, there ARE some climate change impacts which would need advance contingency planning to avoid environmental contamination.	AIR01
6050	D. Previous mining in Minnesota—ie, taconite—has had to take measures to protect the population from harmful fibers released in mining and milling. Specifically, asbestiform minerals are found in some of the rock bodies. There is not much discussion of this potential hazard.	HU01
6071	The Water Quality modeling for the mine area is NOT based on the actual MEASURED flows in the Partridge River. Flows measured by the DNR exist, but the model vastly understates (underestimates) the amount coming in as groundwater... Yet, there is no data presented (and to our knowledge, very little was collected) during the 3 years between EIS's. Why not? The need for data could not have come as a surprise. Why should the SDEIS model be taken seriously if the data needed was not collected?	PD29
6073	The largest extreme rainfall event provided for in the model is 4.1-5.2 inches (25 year & 100 year probability events)... What difference would a real-world event of between 6-10 inches make for the contingency plans?...with 3 more years of global and regional climate observations, modeling, and statistics available—the failure to address drought impacts on a sensitive and water-dependent system for mitigating pollution flow stocks is utterly inexplicable.	PD29
6076	...there remain unanswered questions about air quality issues—ie, the content of the rock and and tailings dust that will result from mining, milling, and chemical treatment to extract the ore.	AIR10
6084	The permitting process should be able to proceed from an SDEIS that will give the agencies charged with protecting Minnesota's air, land, and water resources a scientific and legal position of comprehensiveness and strength.	PER34
6085	And, if harm occurs which was ignored in the SDEIS—or was much greater than the sketchy contingency plans could mitigate, we could be looking at legal battles and expenses beyond belief—especially considering the monumental financial resources of PolyMet's major foreign investor, Glencore Xstrata.	PER03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Margaret A. Redmond (39221)		
13756	The underlying science is supposed to be the basis for mitigation efforts for mining impacts and for contingency planning for a range of complicating (and foreseeable) situations that might arise. When the science, modeling, and serious degree of omitted factors is at the substandard level of this SDEIS report, a decision to allow mining to take place can become a very grim forecast for serious resultant environmental and/or health problems. Further analysis of several issues is essential to be able to avoid them or plan for realistic and effective solutions.	NEPA09
13759	C. Time Span for Treatment. The plans for the mitigation/amelioration measures required to run for 200-500 years are simply not credible. What history is there of pollution containment on this scale for even 100 years? What kind of funds would have to be in reserve to even handle a 50-year "insurance" against the citizens of Minnesota picking up the tab for an extractive industry that digs & runs? Or digs and declares bankruptcy?	FIN01
13760	I also assume that any finding from a regulatory agency which would require changes in operations or temporary shutdowns would immediately be met by an attempt by the mine to get a court-issued injunction blocking those consequences, and whatever violation would continue while bureaucracies haggle it out. Such an ongoing event would have potential to produce major damage to the surrounding environment. Does anyone really believe that the mine would cease operations to fix a problem?	PER06
13761	Mining jobs, while welcome, cannot come at the expense of the environment in Northern Minnesota. The point is not to degrade nor sacrifice the environmental qualities that fuel the more lucrative tourist industry. If credible protections to reduce or eliminate the risk to the resource (ie, the water, air, land, and natural beauty) cannot be assured—guaranteed, even—then everybody (except for PolyMet and its foreign investors) loses.	SO01
13762	G. Setting a Precedent. Because, as we all know, the PolyMet application is only the first of many coming applications for mining permits, this application (and of course the EIS supporting it) have to be exemplary. Any sloppiness or overlooked or weakly planned items/issues/studies in this application (and EIS and permitting process) will, obviously, set a precedent.	PER07
13763	Legal challenges are already mounting to the sulfate limits that are in place to protect Minnesota's wild rice. Basing permitting on this inadequate EIS will most certainly embroil Minnesota agencies in unprecedented levels of litigation and acrimony.	PER10
<b>Sender Name (Submission ID)</b> Margaret Ann Nelson (47080)		
11215	This is way too dangerous, with way too many unknowns, for our state to risk the future health of our lands for relatively short-term gain. Many more jobs would eventually be lost as we lose the wilderness we are so fortunate to be the stewards of.	SO01
<b>Sender Name (Submission ID)</b> Margaret Bujold (42762)		
14516	The PolyMet SDEIS...doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells	HU04, WR041
14517	The PolyMet SDEIS...doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	WET20
14518	The PolyMet SDEIS...doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	AQ28
14519	PolyMet makes a lot of rosy predictions, but the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity."	PD01
<b>Sender Name (Submission ID)</b> Margaret Fait (43598)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Margaret Fait (43598)		
15110	Environmental potential disaster and Ethically corrupt	GEN01
<b>Sender Name (Submission ID)</b> Margaret Haapoja (7767)		
79	Our precious northwoods and BWCA are too valuable to risk no matter how many jobs this company promises.	SO01
858	We don't want our pure water polluted. If the PolyMet process is safe, why can't they prove it by building a pilot plant that will show everyone they can safely mine these metals?	ALT06
<b>Sender Name (Submission ID)</b> Margaret Hayden (54913)		
19315	A few years of monetary profit for some stacked against hundreds of years of large scale destruction for all does not balance. There is no evidence or information that substantiates sulfide mining is a moral choice.	SO01
<b>Sender Name (Submission ID)</b> Margaret Jewell (42539)		
15593	We need the copper & nickel and we need jobs. Tell the environmentalists to put their \$'s in a fund called technology instead of giving it to the lawyers. Their \$'s will help buy the fix. Put the problem out to the country and pay the kids who come up with the answer.	SO10
<b>Sender Name (Submission ID)</b> Margaret Jo Anderson (54885)		
18782	...PolyMet has not provided enough assurances to the public for the long term environmental damages that will incur from their mining operations.	FIN01
18784	[PolyMet gets] the minerals in trade for 15-20 years worth of jobs (for a finite # of people); the citizens of Minnesota are ultimately left with the cleanup of the waters and land for hundreds of years. Not a balanced equation!	SO01
<b>Sender Name (Submission ID)</b> Margaret Kirtley-Sternberg (10380)		
516	Given the track record of the mining industry, there is no reason to believe this mining will be accomplished without destroying water quality, even if the technology exists to do so.	WR195
<b>Sender Name (Submission ID)</b> Margaret Nelson (30186)		
10989	Allowing PolyMet Mining to pollute Lake Superior, the upper lake in the Great Lakes flow, would mean severe degradation of water quality, with consequent threats to human health all along the watershed.	HU03
<b>Sender Name (Submission ID)</b> Margaret O'Loughlin (3472)		
652	the toxic and lasting effects of water pollution	WR001, WR115
653	the absence of long range planning for inevitable accidents and system failures	PD22
656	the tax burden	FIN10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Margaret Sears (40980)	
6655	I care deeply about the condition of waters in every single state that our birds use; whether they live in or are migrating through, Minnesota. I feel that this project is just going to be a slow death for all birds.	WI01
<b>Sender Name (Submission ID)</b>	margaret sorensen (11926)	
13615	The DNR should be committed to protecting our natural resources. What is more a natural resource than water?	GEN01
<b>Sender Name (Submission ID)</b>	Margaret Thilmany (16104)	
9658	I, like many, would like to see the wonderful job opportunities come to northern Minnesota, however not at the expense of long-term devastation of our beautiful wilderness, especially the surface and underground water supply.	SO01
<b>Sender Name (Submission ID)</b>	Margaret Wilcox Browning (54901)	
19219	I would like to know how PolyMet is addressing the problem of our already diminishing moose population. How will the large expanse of land being mined effect the moose population in Minnesota?	WI01
<b>Sender Name (Submission ID)</b>	Marge Danielson (40827)	
14000	Look at the issue for the LONG TERM. We will need water in the future more than we need jobs now.	SO01
<b>Sender Name (Submission ID)</b>	Margi Preus (41128)	
9770	Active water treatment needed for a minimum of five hundred years. Who is going to keep up with that? Who is going to pay for it?	FIN01, WR128
9776	The mine plan doesn't explain what will happen if the water treatment plants break down. What happens if there are failures in any area of the process? What about accidents, mishaps, unforeseen weather events (like the flood in Duluth in 2012)?	WR144, WR202
9782	With a devastated watershed and environment in an area that relies largely on tourism, how many jobs will be lost? Will those who lose their jobs because of the loss of tourism be given jobs doing the clean up? Who will be paying for that? Who is going to pay for any clean up?	FIN01
14210	The likely leaching of this highly toxic sulfur into the surrounding lakes and streams would severely damage the ecology of our area. Elevated sulfur levels would decimate fish populations and reduce or eliminate other aquatic species.	AQ12
14211	The EIS states a need to monitor and repair the holding ponds for at least 500 years! Clearly, no current corporation will likely be around 500 years from now Even the posting of bonds or setting up trust accounts would be unlikely to stop the dispersing of this very toxic pollutant.	FIN01, FIN08
18501	Five hundred years? Active water treatment will be needed for a minimum of five hundred years? Who is going to keep up with that? Who is going to pay for it?	FIN01
18503	Even with treatment, polluted seepage from the tailings will leach into the ground water and our precious watershed. I understand that we are talking about millions of gallons of untreated, polluted seepage draining into our ground water, our streams and lakes. This is wildly unacceptable.	WR070, WR108

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Margi Preus (41128)		
18504	The mine plan doesn't explain what will happen if the water treatment plants break down. What happens if there are failures in any area of the process? What about accidents, mishaps, unforeseen weather events (like the flood in Duluth in 2012) which seem to happen more and more frequently around the world?	PD22, WR131
18505	There is a concern about jobs in the area, and I appreciate that people want to work. But if we think ahead to what could (and seems likely to) happen in the coming years, with a devastated watershed and environment in an area that relies largely on tourism, how many jobs will be lost? In the case of polluted and defiled waterways, many, many more jobs will be lost than we ever gained from this mine.	SO06
18506	Who is going to pay for the clean up? I fear our children and grandchildren and many generations after that will pay for it, with both their money and their health.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Margie Ritter (9416)		
171	Instead I see this as an opportunity to show the world that this substance can be safely mined, that it will be a world-class model for environmental compliance and will provide increased technological breakthroughs for the future generations.	PD28
<b>Sender Name (Submission ID)</b> Margit Johnson (21439)		
1241	The land exchange circumvents federal law that protects national forests and watersheds therein.	LAN02
1243	PolyMet's proposal includes clean-up and monitoring for hundreds of years, which defies logic, financial responsibility and good stewardship	FIN08, FIN11
1244	Yes, we need more copper and other valuable metals. But Minnesota ranks quite low on a national scale of valuable metal reserves. Much larger copper mines elsewhere currently produce and will continue to produce much more product than this mine will ever yield in its 20-30 year life span	NEPA15
1245	Air emissions and water effluent from such a project would include sulfates and asbestos-like materials that will seep or stray far from the proposed project site and have long-lasting consequences...[impacting] not only the flora and fauna of the entire area, but also the employees, their families and other residents and visitors to this precious part of our state.	AIR03
1432	The impact of the mining operation on surface and ground waters ... will be significant.	WR115
1433	[The impact of the mining operation on]... wildlife, ... and sensitive habitats will be significant.	WI01, WI02
1434	[The impact of the mining operation on] ... air quality ... will be significant.	AIR11
<b>Sender Name (Submission ID)</b> Margot Monson (18208)		
4067	Section 404 of the Clean Water Act and the Wetland Conservation Act ... states that, "There shall be no net loss in quality, quantity or biological diversity in Minnesota's existing wetlands." The supplemental EIS states that in addition to a 912 wetland acres destroyed directly at the PolyMet NorthMet site, there will be an additional 7,000-some acres destroyed indirectly from the effects of air and water pollution.	WET24

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Margot Monson (18208)	
4068	...any wetland compensation should occur within the same watershed and include the St. Louis River watershed at the Lake Superior Basin. According to Chapter 5 in the Supplemental EIS, 68 percent of the wetland replacement areas are outside the Lake Superior Basin, 72 percent of the credits are off. The Supplemental EIS only commits to replacement of 26.9 acres out of the over 7,000 acres. These losses will mean that the very serious destruction of peatlands found in this ecosystem, and these take hundreds, thousands of years, sometimes, to develop.	WET03
4073	...as scientists responsible for making these decisions to ask, to the future of our variable wetlands, how can you in good conscience allow the destruction of thousands of wetlands knowing they are truly irreplaceable? If this kind of destruction is permitted, it will be not based on real science, but wishful thinking	WET24
11481	The BWCA and Lake Superior watersheds attract thousands of visitors...every year, ...and provide valuable economic resources to northern communities. The destruction that this mining will bring will certainly mean fewer people attracted to this region, and 20 years of jobs, is a poor excuse for permanent loss of such valuable wilderness	SO02
11486	My other concerns involve the potential impacts on healthy stands of wild rice growing in the St. Louis River that will eventually be reached by the tributaries containing the sulfuric acid drainage...What assures me or the Native Americans that there will be adequate protection for the remaining stands of wild rice still growing in these rivers?	VEG04, WR156
11488	If the idea that perpetual treatment of water contaminated by the sulfuric acid produced by the mining processes may be necessary for centuries is not outrageous enough to stop you dead in your tracks and cause you to reject it, the very fact that the financial assurances will not be stated publicly until the permitting process begins is disingenuous and an insult to Minnesotans.	FIN13
11489	I am most disturbed by the inevitable loss of wetlands, so critical to the function of aquatic ecosystems...The fact that the pan calls for the "replacement" of the destroyed wetlands with land far removed and in different counties, much apparently in previously drained and farmed land, is ludicrous from a scientific perspective.	WET03
13441	In order for an agency to determine wetlands to use for replacement, they must have data that documents the biodiversity of these lands, and having done wetlands research, I know that Minnesota does not have any comprehensive inventories of such diversity	WET06
15449	The Wetland Conservation Act states that there be "no net loss in quantity, quality and biological diversity" for the land chosed to replace the destroyed wetlands. Where are the biological inventories of all the critical species of wetland plants, animals, fungi, etc. that would have to be used to determine equal biological diversity? ...Just because our agencies may be able to legally get by with such artificial wetland replacements; does not mean that it is the ethical or right thing to do.	COE01
19057	If the idea that perpetual treatment of water contaminated by the sulfuric acid produced by the mining processes may be necessary for centuries is not outrageous enough to stop you dead in your tracks and cause you to veto it,	WR195
19059	the very fact that the financial assurances will not be stated publicly until thepermitting process begins is disingenuous and an insult to Minnesotans.	FIN13
19060	The fact that 80% of sulfide mining operations in the U.S. have closed with massive environmental degradation, all have left water pollution behind, and some filed for bankruptcy leaving taxpayers to foot the bill.	SO01
19062	For these reasons and that PolyMet has never operated a sulfide mine, is owned by foreign companies, and Glencore has horrific environmental and financial track records in foreign countries, should be more than enoughevidence for Minnesotans to reject this type of mining and this company at the outset.	PER02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Margot Monson (18208)		
19065	How in the world as a scientist can you accept and approve of any activities that result in the permanent destruction of thousands of acres of valuable and irreplaceable wetlands? ... You know as well as I do that even if the natural waters enter the land again it will be hundreds of years before it functions as it originally evolved, nor will it be the same in quality and biodiversity as the destroyed wetlands. There may be a plan to increase the acreage of the "replaced" land, but increasing it does not justify it because it is different land in a different habitat ecologically, and is an insulting mollification.	WET05
19074	Where are the biological inventories of all the critical species of wetland plants, animals, fungi, that would have to be used to determine equal biologicaldiversity? ... There is no way to judge the biodiversity of wetland organisms well enough to state that two regions are equal, without extensive detailed analyses by qualified biologists.	AQ01
19079	My other concerns involve the potential impacts of healthy stands of wild rice growing in the St. Louis River that will eventually be reached by the tributaries containing the sulfuric acid drainage. There have previously been many miles of wild rice destroyed in the St. Louis River by ferrous/taconite mine drainage and somehow, no one has taken responsibility for this. What assures me or the Native Americans that there will be adequate protection for the wild rice still growing in these rivers? At least our legal system and recent research has protected and affirmed the 10mg/L sulfate standards that are currently in place.	VEG04, WR159, WR162
19082	The destruction that this mining will bring will certainly mean fewer people attracted to this region, and 20 years of jobs, is a poor excuse for permanent loss of such valuable wilderness.	WILD02
<b>Sender Name (Submission ID)</b> Maria E. May (45714)		
13059	The number of jobs temporarily created are not enough to justify ruining the watershed, one of our most vital and irreplaceable resources.	SO01
16355	Foreign mining interests and big money should not determine how we manage public land in Minnesota.	NEPA15
16356	There's no amount of compensation that would be enough for the kind of damage this kind of mining could cause.	FIN05
16357	The SDEIS report released to the public failed to report accurately on the inadequacy of collection pumps to catch all or most of surface and ground water waste,.	WR017, WR018
16358	The same report made no mention of the geologic fractures under the tailings basin itself.	WR012
<b>Sender Name (Submission ID)</b> Maria Freund (38376)		
9595	I am not in favor of a plan that would: Elevate aluminum and lead levels in our water	WR064
9597	I recognize that implementing the proposed plan would create jobs and positively impact the greater Minnesota economy; however, I believe that PolyMet can produce a better project plan for this mining initiative, one that involves less environmental damage/risk, does not threaten our state's defining clean fresh water characteristic, and does not require 500 years of water treatment post-mining operations.	PD01
<b>Sender Name (Submission ID)</b> Maria M. Pierz (45525)		
11516	The impact will endanger the aquatic plants, fish, vegetation, and wildlife	VEG01, WI01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Maria M. Pierz (45525)		
11520	Water Quality is certainly an issue for continuation of legal rights to the Native Americans	WR156
15759	Water Quality is certainly an issue for continuation of legal rights to the Native Americans in the area especially concerning hunting, fishing and wild ricing, in accordance with the Treaty of 1854.	CR01
15761	90% of the area mined will only bring 10% of the copper, and the rest is sulfide and other dangerous minerals (i.e. mercury).	MERC01
15762	Over the years there can be a cumulative effect on the surrounding waters and habitats. Reclaiming the area will be impossible even over the 500 year plan.	CU11
15765	By 2040, the 350 jobs that are gained in the short run will be gone for future generations. Money matters, but the focus should be on the long term and not be part of short term gains.	SO01
<b>Sender Name (Submission ID)</b> Marian Gordin (13628)		
8017	Please choose clean water and a healthy environment for all of us by denying PolyMet's proposal to mine sulfide ore at the headwaters of the St. Louis River, which will damage the watershed all the way to Lake Superior.	WR111
8018	This operation will destroy wetlands directly and contaminate air, water, and soil over a large area.	WET24
<b>Sender Name (Submission ID)</b> Marian Puglisi (54145)		
16040	[The SDEIS] fails to define the human health oeffects of increased mercury emissions, exposure to asbesdos-like mineral fibers and arsenic.	HU01
<b>Sender Name (Submission ID)</b> Marian Van Dellen (14580)		
13744	We need clean water much more than we need minerals	NEPA06
<b>Sender Name (Submission ID)</b> Marie Beckner (35908)		
11293	I am so sad to hear that you are now taking steps that will risk and possibly spoil the natural beauty of this exotic and beautiful place. It is irreplaceable. ... All of the surrounding regions were also beautiful and fragile so that I was thankful that they were relatively isolated. This is a part of our world that needs protection.	LU04
<b>Sender Name (Submission ID)</b> Marie Leven (36145)		
11299	our Great Lakes are polluted enough as it is and there is a warning about eating any fish caught there already. A lotos us get our drinking water from the Great Lakes so what is your plan when we can no longer drink the water?	AQ05
<b>Sender Name (Submission ID)</b> Marilyn Andersen (46203)		
8298	open pit operations that permanently scar the earth and destroy our forests and habitat.	VEG03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Marilyn Andersen (46203)		
8299	acid run-off--which can't be assured for 500 years, no matter what price.	FIN01
8300	habitat destruction for native plants and animals	VEG02, WI02
8303	pollution, such as sulfates in our wetlands, which become toxic to plants and animals, and production of mercury methylate, which further poisons aquatic life	VEG06, WET24, WI04
8304	further infringement of Indian rights on legally ceded territories, including hunting and ricing activities	CR01
8306	"streamlining" public processes such as hearings, etc. to make it easier for wealthy corporations to pull off huge projects such as this without having to deal with public opinion.	NEPA11
<b>Sender Name (Submission ID)</b> Marilyn Berling (27169)		
15267	We wonder why you would ever consider an open pit sulfide mine on National Forests Land. Doesn't this land belong to all of us? Aren't you the people who are responsible for protecting our interest? Allowing a multinational corporation access to make a profit on "our" forest land is not in our best interest as it seriously negatively effects the environment, particularly the wilderness areas and Lake Superior.	LU01
<b>Sender Name (Submission ID)</b> Marilyn J Benson (54569)		
18969	...let's not trade clean water in perpetuity for 300+ jobs—for 20 years	SO01
<b>Sender Name (Submission ID)</b> Marilyn Magnuson (16163)		
11208	STUDIES never really come back with the full disclosure that one in good faith hopes for. We could site locations as well as citizens that were given assurance upfront, only later to be apologized to because "mistakes" were made.	PD01
<b>Sender Name (Submission ID)</b> Marilyn Rahn (41712)		
14095	My hope is that we err on the side of caution whenever it comes to the environment. We need to demand high standards for mining to protect our water.	PER03
<b>Sender Name (Submission ID)</b> Marjorie Pitz (11328)		
806	All in all, the concept of creating a sealed basin sounds appealing, but there will always be seams and wrinkles, improper applications, and weather struggles, and a perfect seal is not possible. Nor is a sealed basin's life span going to be long enough to deal with the toxin life above.	PD17
<b>Sender Name (Submission ID)</b> Marjorie Savage (18905)		
1252	I have a strong and personal interest in sustaining water quality and preserving the natural environment along the river.	WR195
1253	I have a strong and personal interest in sustaining water quality and preserving the natural environment along the river.	WR115

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Marjorie Savage (18905)		
14729	Please increase the comment period for the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (SDEIS). I would like time to review and consider this plan, but the length of the document requires more than 90 days for the average citizen to read this complex plan.	NEPA07
14730	Please increase the comment period for the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (SDEIS). I would like time to review and consider this plan, but the length of the document requires more than 90 days for the average citizen to read this complex plan.	NEPA07
<b>Sender Name (Submission ID)</b> Mark (20826)		
1833	I do not believe that PolyMet is capitalized to the point that if groundwater contamination happened, they would be able to provide long term protection to the citizens of MN.	FIN01
16204	Fresh water is a valuable resource in and of itself, much more than nonferrous metals in MN. The risk of environmental damage is great, the likelihood that PolyMet will not be able to adequately address the issue is also great	WR115, WR195
16205	...any amount of money that is required to be set aside must be indexed for inflation, so \$100M determined to be sufficient today will grow as the costs for the eventual clean up grow. This amount must be revised on an annual basis with the State on MN holding the money in escrow.	FIN05, FIN08
<b>Sender Name (Submission ID)</b> Mark A. Kaprelian (47622)		
7512	Polymet has no demonstrable capacity to establish or sustain a viable mining operation.	PER02
7548	[T]he Co-lead Agencies appear to assume that Polymet will continue as a going concern at least for decades and perhaps much longer, without incorporating the substantial possibility and potential consequences should the business fail much earlier. Such a premature failure...should be considered explicitly in the SDEIS.	FIN03
7571	[I]f Polymet fails to meet [financial assurance] requirements because it ceases operations due to business failure, an environmental accident or for some other reason, the financial assurance instruments then in place, if any, might be insufficient to cover the costs of reclamation...Potential sources and amounts of other funding should be identified should this contingency occur.	FIN01
<b>Sender Name (Submission ID)</b> Mark A. Snidarich (43842)		
11856	I'm very familiar with, and have faith in, the proposed reverse osmosis water treatment technology and believe that if any further water treatment would become necessary that simple ozonation of discharged water in holding ponds would complete the process to comply with even the strictest water quality standards.	WR190
11859	We cannot afford to miss this job opportunity.	SO10
14946	The same ozonation technics [for water] hold true for air quality.	AIR11
14947	Companies that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	PER34
<b>Sender Name (Submission ID)</b> Mark Anderson (45617)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark Anderson (45617)		
11702	Every sulfide mine ever operated has polluted the water around it. There will be pollution. This is acknowledged in the EIS. Polymet claims it can control the amount of contamination. It cannot , however, control nature for 500 years. The massive rain event of 2012 should teach us even greater respect for nature.	PD26, WR023, WR180
11705	No amount of economic gain is worth the risk to perhaps Minnesota's greatest resource, clean water.	SO01
13393	Every sulfide mine ever operated has polluted the water around it. There will be pollution.	WR195
13394	Polymet claims it can control the amount of contamination. It cannot , however, control nature for 500 years. The massive rain event of 2012 should teach us even greater respect for nature.	PD22
13395	No amount of economic gain is worth the risk to perhaps Minnesota's greatest resource, clean water.	SO01
<b>Sender Name (Submission ID)</b> Mark Arneson (44235)		
11311	Proposing the creation of a new environmental problem that demands treatment for so very long cannot rely on a high tech solution. There are too many things to go wrong, both things thought of and those not yet imagined. There needs to be a proven, effective low tech solution that will clean up the fallout of this mining operation.	PD32
14883	An extraordinary request to create an environmental problem for Minnesota to deal with into perpetuity requires an extraordinary demand - the mining and exposure of this acid producing rock is permitted only if it can be treated in a proven, low tech, fail safe manner without continual human input. The SDEIS needs to include this fail safe treatment option.	PD32
<b>Sender Name (Submission ID)</b> Mark B (47108)		
11241	My greatest worries concern the long term harmful environment impacts that such mining will cause. These fears are due to the companies reported lack of experience in this type of mining and it's troublesome history of implementing adequate environment protections.	PD23
11245	I'm suggesting waiting, hopefully until better pollution controls exist to ensure that these precious natural resources remain available for future generations.	PER35
<b>Sender Name (Submission ID)</b> Mark Bakk (18210)		
13442	Whether it's wind energy, solar energy or battery storage, it takes precious metals mined from the earth to capture renewable energy and make it work. If we're opposed to taking these resources out of the ground to meet renewable energy mandates and expand alternative options, is the outcome truly clean or green.	NEPA05
13443	it morally acceptable to allow mining for precious metals elsewhere where we can't verify the environmental outcomes? ... When we transfer this demand, it's like burying our heads in the sand. If you have a Smart Phone in your pocket right now --	NEPA05
<b>Sender Name (Submission ID)</b> Mark Baldwin (42147)		
3282	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR111, WR115

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mark Bauerly (10752)		
607	I support the project 100%. I know that the mine be environmentally safe. It will have a huge positive economic impact on Minnesota and the U.S.	SO10
<b>Sender Name (Submission ID)</b> Mark Brice (37026)		
15910	I believe that Polymet will provide immense economic benefits to the state of MN, especially the iron range region.	SO10
15911	However, Twin Cities residents have no right to impose unnecessary environmental restrictions to this project. Doing so only prevents financial benefits to families living on the iron range.	PER34
<b>Sender Name (Submission ID)</b> Mark Brown (4785)		
1897	The very nature of bringing sulfide ore to the surface where it reacts with water and oxygen is very harmful to the surroundings. This action results in the formation of sulfuric acid and the leaching of harmful heavy metals and other harmful substances into the ground water and the surface water shed.	WR001
1898	Since close to 99% of the sulfide ore is considered waste and is left behind on the surface and is not hauled away to be used, that leaves a very huge amount of material on the surface to cause environmental issues for centuries to come.	PD01
1899	What will [watershed pollution] do to the fisheries in the two watersheds? Minor changes in the ph of the surface waters will disrupt reproduction.	AQ05, AQ08, WR113
1901	The environmental impact from iron mining is immensely less than that of sulfide mining. ... We cannot live with the immense potential damage that sulfide mining can cause to the environment.	PD27
<b>Sender Name (Submission ID)</b> Mark C Wihriala (11642)		
2336	I do not believe that the SDEIS is sufficient cumulative analysis of water quality impacts from PolyMet mining.	GEN01
2336	I do not believe that the SDEIS is sufficient cumulative analysis of water quality impacts from PolyMet mining.	GEN01
2337	The section 404 permit should be denied because PolyMet's discharge would violate water quality standards, destroy animal and fish habitats, and threaten natural resources for centuries to come.	COE03
2337	The section 404 permit should be denied because PolyMet's discharge would violate water quality standards, destroy animal and fish habitats, and threaten natural resources for centuries to come.	COE03
4264	But I do not believe that the SDEIS is a sufficient, cumulative assessment of the water quality impact from PolyMet Mining. I am requesting the state and Minnesota to deny the wetlands destruction permit, Section 404 Permit to be denied since PolyMet's discharge would violate water quality standards, destroy animal and fish habitat, and threaten national resources for centuries to come.	AQ26
8529	I am requesting that the State of Minnesota Public agencies reject the SDEIS as Inadequate and the Polymet Project as Environmentally HARMFUL!!	NEPA09
8529	I am requesting that the State of Minnesota Public agencies reject the SDEIS as Inadequate and the Polymet Project as Environmentally HARMFUL!!	NEPA09

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mark Calabria (16065)		
11037	How we could even consider approving this mine is beyond logic. Please do not allow it to be built as planned.	GEN01
<b>Sender Name (Submission ID)</b> Mark Catron (39541)		
6338	[It is a bad idea to combine] the exposure and deposition of sulfide rock in a wet environment [with] a fragile watershed ... Leaching of acids for generations to come, hoping that technology will somehow prevail.	WR001, WR128
13537	Please don't sacrifice the priceless legacy of a pristine North Country for a few million in taxes and twenty years of jobs.	SO01
13538	our "partner" in this boondoggle, for the next several hundred years, is to be Glencore, one of the world's most notorious polluters ever. Why would we think this would end well?	FIN01
16780	This is a shockingly bad idea: combining the exposure and deposition of sulfide rock, in a wet environment, located in a fragile watershed, to cause leaching of acids for generations to come, hoping that technology will somehow prevail.	PD04
<b>Sender Name (Submission ID)</b> Mark D Jackson (42538)		
15590	I am... a member of the Biwabik City Council and realize the effect PolyMet will have on our Economic Development in the city.	SO10
15591	I believe that more than enough time & money has been spent on EIS & it is time to go in the permitting phase so construction can begin.	PER34
<b>Sender Name (Submission ID)</b> Mark D. Dickinson (43046)		
12210	I do not believe the "BENEFITS" outweigh the "COSTS". ...While there is copper-nickel, this is NOT the only valuable resource. As a citizen of Minnesota and user of the BWCA and other northern MN areas, I do not believe the "costs", to the environment and the tax payers for the 200 to 500 years after mine closure, are warranted....The copper-nickel will not be used in MN, or the US, and therefore will not directly benefit MN.	SO01
12211	Short term benefits of relatively few jobs do not outweigh long term costs of pollutant monitoring and clean up. (Are we that optimistic to think a mining company will provide financial support for 200 to 500 years? That is not optimistic, it is "dumb"- no company is going to last that long nor provide the financial resources for that time period!)	FIN10
12212	The copper-nickel is not needed, we can derive what is needed from recycling.	ALT09, ALT16
12213	PolyMet has NO documented contingency plans for accidents/disasters.	PD22
<b>Sender Name (Submission ID)</b> Mark E. Vesley (43462)		
15557	Will PolyMet, a mere shell company, be responsible for guarding against these inevitable events for the next 500 years? What financial assurance for disaster mitigation can PolyMet possibly provide that would cover such an immense period of time? What assurances has the DHR confirmed thus far to pay for mitigation of even the "normal" amount of acid and heavy-metal environmental damage in ensuing years that sulfide mining always produces?	FIN01, FIN08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mark E. Vesley (43462)		
15558	[Regarding the contingency plan] What exactly does the phrase “appropriate response actions” mean? Why are the Flotation Tailings Management Plan’s disaster provisions not covered more fully in the SDEIS?	PD22
15559	As “100-“ and “500-year” floods begin to occur every few years in northern Minnesota, it is clear that extreme weather could cause failures in treatment systems that enable pollutant release from mine tailing pits far in excess of any rosy PolyMet projections.	WR057, WR077, WR180, WR193
<b>Sender Name (Submission ID)</b> Mark Engebretson (47124)		
12857	we have not seen a financial proposal for future protection and recovery from someone that we can refer to or endorse.	FIN01
16629	It is hard for us to compare effectively a clear near-term benefit (Jobs!, usually), against a foggy long-term detriment, even, in the case of hard rock mining, with plenty of past examples of cases where the scales have been poorly calibrated.	SO01
<b>Sender Name (Submission ID)</b> mark gibson (22294)		
3352	Risks are too high for the potential rewards.	SO01
<b>Sender Name (Submission ID)</b> Mark Haider (28725)		
10918	Why would the state of Minnesota assume the full risk of cleaning up Poly Met mine site: Poly Met or another business entity which could own the mine site in the future would surely walk away from the massive undetermined liabilities.	FIN01
10919	Poly Met isn't even committed to start cleaning up the mine site until after the mine site would be closed.	PD09, PD35
10920	What water would Minnesota be cleaning up with a reverse osmosis plant proposed for the site; polluted well water or/and polluted surface water????	WR143
10921	An undermined amount of jobs for an undetermined amount of years??? We would be better off to building a water bottling plant to produce water to ship to California for 500 years!	SO02
12705	I have to know that [PolyMet] can be trusted. Okay. Which we are talking 550 years here. You know, 500 years. How about one year? We are not even going to be sure that they are going to have it a year after it opens.	FIN01, FIN08
13124	Poly Met isn't even committed to start cleaning up the mine site until after the mine site would be closed. What water would Minnesota be cleaning up with a reverse osmosis plant proposed for the site; polluted well water or/and polluted surface water????	WR041, WR143
16971	Why would the state of Minnesota assume the full risk of cleaning up Poly Met mine site: Poly Met or another business entity which could own the mine site in the future would surely walk away from the massive undetermined liabilities.	FIN01
16972	An undermined amount of jobs for an undetermined amount of years??? We would be better off to building a water bottling plant to produce water to ship to California for 500 years!	SO06
<b>Sender Name (Submission ID)</b> Mark Hall (42993)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mark Hall (42993)		
8999	The development of billions of dollars worth of necessary metals contained in the Polymet project, will provide high paying and rewarding union jobs directly and for the associated industries located in northern Minnesota...Compare that to the diminishing tourism industry where employment is house-keeping /service oriented, at limited wages and is typically seasonal.	SO10
15235	Minnesota and its people have greatly benefited from iron mining for over 100 years and copper nickel mining may be even more beneficial....The failing economic conditions of communities in northern Minnesota need to be addressed in order to allow our young people to remain in the communities they grew up in and not have to migrate out of state to find rewarding employment.	SO10
15236	The review of the Polymet project should include an overall evaluation of the economic impact. That should include the economic consequence of driving mineral resource development out of the country...The elevated cost of importing our metals from other countries, the loss of wages, unemployment and other social programs costs for those that would have otherwise been employed, should be included in the overall decision	SO04
15237	The [economic] review should also evaluate the revenues generated for the government and in particular for our educational institutions...A thriving mining industry would be a substantial source of revenue to the state to help prevent cuts to social and other programs.	SO10
15238	The evaluation should also consider the legal consequences of prohibiting the development of very valuable private mineral rights on the Polymet and other lands in the Duluth Complex... [This would deny] private parties the benefits of their properties	SO04
<b>Sender Name (Submission ID)</b> Mark Harris (22931)		
12167	If approved the mine will pollute the largest of our Great Lakes, Lake Superior, threaten local clean water and wildlands, and endanger public health for generations to come.	HU03
<b>Sender Name (Submission ID)</b> Mark Haugland, MD (45856)		
10192	We are concerned that the proposed PolyMet NorthMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water.	HU01
10195	We also believe that the [PolyMet SDEIS] fails to adequately assess important risks to human health from the pollutants that would be released from this project. The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the PolyMet SDEIS is particularly troubling.	HU01
10200	We ...request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal [and that] a comprehensive Health Impact Assessment (HIA) be prepared under the guidance of the Minnesota Department of Health.	HU01
10202	Mercury contamination of fish and impacts on neurotoxicity in the developing fetus as well as in infants, children and adults is a significant public health concern in Minnesota...1 out of 10 infants in Minnesota's Lake Superior Region are born with unsafe levels of mercury in their blood. ... many of the bodies of water downstream of the proposed PolyMet mine and plant are legally impaired due to mercury in fish tissue. The lower reaches of the St. Louis River...contains a particularly high level of mercury. We also know that other mine facilities release both mercury and the sulfates that increase bioaccumulation of methylmercury.	HU03
10204	...we believe that the information on mercury releases and the potential for mercury bioaccumulation is insufficient. The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	MERC16, MERC20

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Mark Haugland, MD (45856)	
10207	The PolyMet SDEIS also provides an insufficient analysis of the human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and carcinogenic effects of air emissions of diesel, asbestos-like fibers, nickel and other particulates, and of arsenic releases to water.	HU01
10208	The PolyMet SDEIS fails to analyze health risks to workers who would work on-site at the PolyMet mine or plant	HU04
10211	The PolyMet SDEIS fails to ... assess impacts of tailings groundwater seepage on nearby residential [wells].	HU01, WR041, WR064
10212	The PolyMet SDEIS does not discuss impacts of exposures to vulnerable populations, such as infants, children, the elderly and persons who rely for subsistence on fish, wild rice or game species where pollutants may bioaccumulate.	HU03, VEG04, WI04, WI09
10213	we would first request that the PolyMet SDEIS be revised to provide more complete information on mercury and sulfate emissions, deposition, and seepage from various sources, and the potential conversion to and bioaccumulation of methylmercury resulting from releases to the environment and hydrological changes from the proposed PolyMet project.	MERC08, WR197
10214	We would further request that the PolyMet SDEIS be determined inadequate pending supplementation to include a Health Impact Assessment, under the direction of the Minnesota Health Department.	HU01
10215	This Health Impact Assessment should include [a] description of the known human health impacts of all pollutants in PolyMet’s air emissions and water discharges based on reliable toxicity and epidemiology data.	HU01
10216	This Health Impact Assessment should include [an] assessment of potential health impacts on residential wells from tailings seepage.	HU01, WR010, WR041
10218	[A] Health Impact Assessment should [be conducted] for on-site workers at both the PolyMet mine and plant.	HU04
10219	This Health Impact Assessment should include [an] assessment of cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River.	HU01
10221	This Health Impact Assessment should include [an] assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis and an appropriate “lifetime” for exposure.	HU01
10223	This Health Impact Assessment should include [an] assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.	HU01
10224	Environmental Impact Statements...are required by the National Environmental Policy Act to contain analysis of impacts on human health. However, human health is subordinated to environmental impacts, is addressed in a piecemeal fashion, and there is no examination of the social determinants of health in the SDEIS. [ A Health Impact Assessment] would integrate human health into the environmental review for the PolyMet NorthMet proposal, allow consideration of mitigation measures, and involve the community in planning for the project.	HU01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mark Haugland, MD (45856)		
10226	The State of Alaska has adopted [Health Impact Assessments] as a best practice for environmental review of mining and natural resource extraction proposals, and has established procedures and a toolkit for conducting an HIA in that context. The U.S. Centers for Disease Control and Prevention also has a number of resources for integrating HIAs into the environmental review process. In Minnesota, HIAs have also been conducted as part of projects such as the Central Corridor LRT in the Twin Cities. In addition, Blue Cross and Blue Shield Minnesota recently has announced they would be interested in funding HIA's for the state.	HU01
<b>Sender Name (Submission ID)</b> Mark Imsdahl (9640)		
253	Please, do not let them mine until they have the technology to immediately, cleanly, and completely dispose of the waste products.	PD32
582	I have no faith in ANY proposed system that is required to monitor and safeguard the waste for 500+ years.	PD29
1359	I have no faith in ANY proposed system that is required to monitor and safeguard the waste for 500+ years. A year of two... maybe, but 500 years. Seriously? If indeed, that it what is required, that is ridiculous, and we all know it. Frankly, I'd like to know what incentives Polymet will have to maintain an abandoned mine 400 years after any person who benefitted from it or had anything to do with it is dead! I saw a sign last night that read "500 Years Ago, Martin Luther Was a Catholic". Sarcastic, but it makes another good point.	PD01, PD29
1470	Please, do not let them mine until they have the technology to immediately, cleanly, and completely dispose of the waste products.	PD32
<b>Sender Name (Submission ID)</b> Mark Larson (43023)		
12427	The \$3.5 to \$6.0 million level of anticipated annual long-term costs after Polymet closures does not encompass major contingent events. This low level does not meet the reasonableness test of an informed citizen or third-party expert analyst – such as an insurance actuary, or financial risk manager.	FIN05
12435	Intelligent decision-making must take into account the experience of the industry, and not rely only on models that can't fully describe what would happen around Polymer's proposed facilities...The record of the copper-nickel industry is one of contamination consistently exceeding their permits and technologies. This empirical track record should be weighed heavily by DNR relative to the prospective models and plans in the PolyMet SDEIS.	PER35
12446	Unlike in many western states, the proposed mining area in NE Minnesota is water-intensive, and feeds into Lake Superior and potentially the pristine BWCA Wilderness and border lakes.	WR111
12452	The standards used for the PolyMet Projects will set the precedent. Approval would accelerate the additional copper-nickel projects. They could expand the mining footprint, proliferate groundwater and surface water exposure, and multiply water and air impacts. Hence, there is a need for a generic EIS for copper nickel and precious metal mining, such as those carried out by the Environmental Quality Board for Forest Management (1994) and for Animal Agriculture (2002).	CU19
12453	FINANCIAL ASSURANCES DO NOT ENCOMPASS ALL RISKS: Unlike the State of Minnesota, the responsible corporate entities, Polymet and Glencore, will not exist in perpetuity...that entities such as Polymet are designed as shells to execute a project and deflect long-term financial risk. Glencore may not exist in fifty years...any financial assurance plan should name Glencore and its successors and shareholders as responsible.	FIN01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mark Larson (43023)		
12454	DNR has stated that financial assurance could be adjusted annually. That reactive approach does not seem adequate given the magnitude of risks and potential impacts. If major watersheds were poisoned on a significant scale, damage could escalate and severely compromise the quality of life and outdoor recreation competitiveness of the region. Such contingencies might overwhelm any corrective plan.	FIN05, FIN08
12456	It is not clear that they [Minnesota's strong environmental laws] provide protection from tragic impacts of very long-term unpredicted contingencies and cumulative impacts of multiple copper-nickel mining installations.	CU11
16980	UNACCEPTABLE RISK THAT GOES BEYOND MODELS AND SDEIS: Models used for understanding water and toxins' interactions with natural systems and built infrastructure are useful, but they are tools. ...They cannot fully predict contingent events such as infiltration through fractured bedrock or 100- or 500-year rainfall events. Storm events in Minnesota and the country have frequently exceeded existing climate models and infrastructure designs in recent years, causing catastrophic failures	WR180
16984	...technologies as reverse osmosis have limits. The SDEIS states that reverse osmosis will only treat part of the contaminants from the Polymet facility – not water going into the containment basin. My understanding is that reverse osmosis that has not solved water pollution issues at Minnesota taconite mines.	WR143
16987	PUBLIC AGENCIES MUST THINK STRATEGICALLY AND RECOGNIZE LONG-TERM CUMULATIVE IMPACTS...Additional non-ferrous mining projects are in pending. Effective stewardship requires that we plan beyond single cases, anticipate emerging long-term developments and risks, and hold all players accountable for end outcomes.	CU02
16989	the financial assurance approach in the SDEIS does not include the following contingencies: ?All forms of long-term seepage from pits and basins into groundwater. ?Events such as overflows from catastrophic storms or infrastructure failures. ?Direct damages and highly challenging if not impossible containment or remediation of wells, lakes, wildlife and forests in the region from unforeseen groundwater or surface water contamination beyond the PolyMet site. ?Economic damage to residents, recreational property owners, cities, and industries in the region from unforeseen contaminated groundwater or surface water flows into local or eventually into major watersheds (St. Louis River, Kawishiwi River, Rainy River, etc.) and iconic lakes (Lake Superior, BWCAW, border lakes).	FIN11
<b>Sender Name (Submission ID)</b> Mark Lauderbaugh (42909)		
7805	There is nothing requiring the State of Minnesota to allow the development of the copper veins in northern Minnesota at all, especially at the insistence of the Polymet Corporation or any other developer.	PER35
7808	There is a major difference in the value of job salaries ( limited to a 20 year time span for the mine) versus the life time environmental value of this area.	SO01
7815	Approval of the present proposal from Polymet opens the door for fairly automatic approval of the Twin Metals proposal in the BWCA watershed.	CU04
7818	Recently the EPA moved to curb the development of the Pebble Mine in the Bristol Bay area of Alaska due to "ample reason to believe that the Pebble Mine would likely have significant and irreversible negative impacts" on the Bristol Bay watershed. The same potential impacts exist with the proposal by Polymet for their open pit copper mine in the Babbitt area involving the Lake Superior watershed and eventually the BWCA watershed.	WR023, WR071
7820	The very stated requirement for extended (50, 100, 200 years) waste water treatment on this project speaks to the recognition by Polymet and our MPCA that there will be negative impacts on our environment.	WR115

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark Lauderbaugh (42909)		
7824	Any environmental study needs to include all future impacts for a fully developed copper mining industry in northern Minnesota. It [environmental study] needs to address future proposed mines in the BWCA watershed, such as Twin Metals.	CU02
7829	Nowhere has an open pit copper mine such as the proposed NorthMet Mining Project (Polymet) been successfully operated without polluting the environment and costing taxpayers millions of dollars to clean up.	FIN01, FIN10
7831	The mining of copper - sulfide mining is not like the environmental impact created by iron ore mining in northern Minnesota.	PD27
7833	The EIS does not address the smell which will be created by "sulfur" laden waste water in the open pits and rivers.	AIR10
7834	The EIS does not address the modeling problem on the base water flows.	WR003
8861	The EIS does not address the modeling problem on the base water flows. This needs to be address so a more accurate picture of the environmental problems can be identified and addressed.	WR003
8869	our environmental leaders [forestry service, MPCA and DNR] will be making a decision as to whether to create potentially one or several potential Superfund sites in northern Minnesota or not. Nowhere has an open pit copper mine such as the proposed NorthMet Mining Project (Polymet) been successfully operated without polluting the environment and costing taxpayers millions of dollars to clean up.	FIN01
15202	What does the State or the region stand to gain? Improved regional economy due to 350 permanent mining jobs, not all filled by local residents? What about the job loss created in the recreational industry serving the BWCA?	SO02
15203	[The potential for significant and irreversible negative] impacts exist with the proposal by Polymet for their open pit copper mine...The very stated requirement for extended (50, 100, 200 years) waste water treatment on this project speaks to the recognition by Polymet and our MPCA that there will be negative impacts on our environment. Why would Minnesota move forward with these risks?	COE04
15204	Has there been any discussion about preventing the mining of copper in the BWCA watershed? Recent denial to extent comment period seems to indicate a rush to get this important decision behind us. Any environmental study needs to include all future impacts for a fully developed copper mining industry in northern Minnesota. It needs to address future proposed mines in the BWCA watershed, such as Twin Metals. Permitting Polymet opens the door which cannot be shut.	CU18
15205	Polymet has never developed a copper mine of any type according to comments provided at the Duluth hearings. Should we not as a State require proven experience and track record on such an important issue for Minnesota?	PD23
<b>Sender Name (Submission ID)</b> Mark Lundberg (6625)		
1093	If the Polymet mining goes through, there should be aggressive measures created to police the air, water, and land issues. Measures that will shut down the mining operation, if there is evidence of any possible breaches in Polymet's assurances.	PER06
1094	I could get into the jobs, the local and state taxes, the future of our children, Polymet's being a good custodian	SO10
1200	I believe Polymet corporation's due diligence has been over and above. I believe their plans on keeping the mining and run-off areas environmentally safe are legitimate.	PD28
1201	I also believe that Minnesota's checks and balances and Polymet's pro-activeness will make this venture work.	PD28

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark Luttinen (689)		
42	[There is not] adequate funding set aside to cover the 200 to 500 years of waste water cleaning, monitoring. This will eventually fall into the hands of the state when the cost overruns what is set aside and the mining companies have provided what they can afford to cover without going bankrupt. It looks like a planned superfund cleanup site is the result of this mine.	FIN11
43	There isn't enough information about how [the holding pond] would hold up to huge rainfalls and sudden flooding conditions[...]There is no secondary capture in place and if a overflow or breach occurred, it would flow into the St. Louis River watershed.	PD11
44	Not enough information on the reverse osmosis process to clean the water. The idea is great but it will require a huge amount of energy to run this type of system. Is this within the ability of the local power grid? Are they going to create electricity onsite to power this? Has this been tested on the scale that will allow them to profitably process the volume of ore that is planned?	PD03, PD39
<b>Sender Name (Submission ID)</b> Mark Lystig (18245)		
13634	It's not just a matter of there being minerals up there. There are minerals up there, true, but there are other aesthetic features of the area that do not occur anywhere else, and we need, as a community, as a country, as a world, to protect the earth, and this the time to do it.	SO02
<b>Sender Name (Submission ID)</b> Mark Moehlenbrock (43025)		
12657	Minnesota laws governing mine permitting expressly forbid granting a permit to any project that requires perpetual water treatment. By Polymet's own calculations, their waste water would require water treatment for at least 500 years; their models didn't calculate what would happen after that. Surely this is in violation of Minnesota's mine permitting laws.	PER04
12661	The SDEIS vaguely references non-mechanical [waste water] treatment, but doesn't explain what that treatment method might be or when it will be able to be employed.	PD06
12681	Mercury loading in the Embarrass River is expected to increase. The Embarrass River watershed is already impaired by excess mercury in fish tissue. The SDEIS justifies this by saying that, because mercury loading to the Partridge River will decrease, the net effect is less mercury in the Saint Louis River...Because of the existing impairment for excess mercury in fish tissue, any project that anticipates adding further mercury to the Embarrass River should not be deemed acceptable.	MERC22
12688	The document [SDEIS] contains two critically important pieces of information: 1) Polymet really has no idea how long their waste rock piles and tailings basins will leach toxic water, and 2) They have no idea how they will treat that water non-mechanically after mine closure.	WR035
17000	Polymet claims to be very concerned with post-reclamation water quality, but in 50 years, when there is no more money to be made, who is going to make them accountable? 500 years is longer than any of us can fathom, and the idea that Polymet will be on site for half a millennium, diligently maintaining their waste water treatment facility, is absurd.	FIN01
17003	[Regarding] the uncertainty of the mathematical models Polymet used...Their calculations were off by factors of "approximately 2 to 4" and they simply applied a linear "calibration factor" without having any idea what caused the discrepancy. They assumed the mistake was of a simple factor of 2 or 4, but what if this factor varies exponentially with some other independent variable? They admit that the discrepancy is "not completely accounted for." When I combine this with the much-publicized mistake in the Partridge River base flow rate model, I have very little confidence in any of their water quality conclusions.	WR049, WR060
<b>Sender Name (Submission ID)</b> Mark Morrissey (747)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark Morrissey (747)		
445	Very concerned about endangering water table [with the NorthMet Project] for generations to come	WR070, WR195
446	Come back with better technology in 50 years.	ALT16
447	This is reckless dangerous planning to go ahead with unproven technology.	PD32
<b>Sender Name (Submission ID)</b> Mark N. Lazar (14785)		
1767	We are risking an environmental catastrophe that would destroy a wilderness treasure. There is no reason to trust PolyMet will continue to protect the BWCAW.	WILD02
<b>Sender Name (Submission ID)</b> Mark Pelham (1379)		
48	The wastewater treatment may need to continue for hundreds of years, so the estimate of \$3.5-6 million annually is meaningless. How much will treatment cost in 100 years? 200 years?	FIN01, FIN05
49	[There is a] lack of consideration for underground mining as an alternative	ALT01
498	I don't see any room for errors, accidents, spills, etc., yet there will almost certainly be unplanned events during a project of this size and duration. The environmental risk seems much higher than the document admits to.	PD22
<b>Sender Name (Submission ID)</b> Mark Phillips (18221)		
2182	I believe the agencies, both state and federal, should find the SDEIS adequate and move forward with permitting.	SO10
2183	I also observed that PolyMet has worked diligently to respond to both the State Federal agencies to ensure a project meets all of Minnesota's and federal environmental standards. I was also comforted that PolyMet was proposing to use proven technology to remove any contaminants before returning collected and processed water to the environment. I also appreciated that PolyMet was willing to meet the state's somewhat arbitrary wild rice standards.	PD28
<b>Sender Name (Submission ID)</b> Mark R. Brown (3163)		
621	I am impressed and confident that the preparations and precautions proposed by PolyMet through processes like reverse osmosis will protect the environment today and well into the future.	PD28
19602	I believe that PolyMet will provide real living wage jobs for residents of the area, support education, local charities and initiatives, youth activities and opportunities all the while safely and responsibly mining important metals that are essential to the local; and global economy.	SO10
<b>Sender Name (Submission ID)</b> Mark Raulston (33238)		
12203	I greatly appreciate the ecological, economic, and recreational value of the lakes. Even from a strictly business perspective, when you put a proper value on these services that the lakes provide, keeping sulfide mining is the right thing to do.	SO10
<b>Sender Name (Submission ID)</b> Mark Rieder (11341)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark Rieder (11341)		
272	The short term economic benefits do not outweigh the long term environmental cost.	SO01
<b>Sender Name (Submission ID)</b> Mark Roalson (57340)		
18433	my main concern is if the regulating agencies, like the MPCA and the Minnesota DNR cannot make Cliffs Natural Resources clean this up before PolyMet, how are they going to regulate PolyMet, that is going to be a lot bigger operation?	PER06
18435	Another thing that concerns me about the PolyMet mine is that there doesn't appear to be any emergency plans in case of catastrophic events, like heavy rainfall, heavy winds that might damage or cause leaking in tailings ponds or in any treatment plants.	PD22
18437	there is going to be large containers of chemicals stored, like sulfuric acid and other chemicals to process the mine ore. And these things need to be bermed and contained, and there needs to be emergency plans in case some of those break, from whatever cause it might be.	PD22
18438	Minnesota has a law on the books stating that when you sink a hole in the ground, like exploratory drilling, to take ore samples out in the form of a core, that these exploratory holes have to be grouted, cemented from the bottom to the top to prevent cross aquifer contamination. But the Minnesota Department of Health has issued a waiver to the exploratory drilling companies that they don't have to grout these holes for ten years. So, one of my concerns is if they are giving waivers now and making exceptions, what other exceptions are they going to make in the mining process if things don't go according to plan?	PER06
19608	One factor that I couldn't find addressed in the latest PolyMet SDEIS is the issue of mitigating the results of natural disasters. While dealing with the acid water, heavy metals, waste rock and other concerns are listed, none take into account of what emergency efforts would take effect if there was a major flood... if you check the records at the MPCA, you will find that an already existing stockpile of copper-nickel ore stored within a berm (set aside by the former LTV mine on what is now Polymet) has several times had acid drainage wash over its walls and into tributaries going north to Birch Lake.	HAZ01
19609	Flooding ...should definitely be considered in the emergency plans to contain waste and untreated water of all types.	HAZ01
<b>Sender Name (Submission ID)</b> Mark S Jensen (54521)		
18736	PolyMet has not proven that they can contain or dispose of the waste rock and other materials associated with the mining process.	PD15, PD23
<b>Sender Name (Submission ID)</b> Mark S Roalson (42805)		
7032	After asking DNR, Forest Service, and Army Corps of Engineer staff, no one could tell me for sure if there is an established data baseline of just exactly what the biological makeup of the PolyMet watershed is. I didn't see it in the SDEIS. This would include all freshwater zoo plankton, invertebrates, plants, minnows, fish, and insects. This baseline should be checked on a regular basis for comparison ( if mining is permitted) and checked for indication of die-offs or population changes and absorption of all pollutants, especially heavy metals. WICOLA has done this in Ely for the White Iron Chain of Lakes, and it should be done for the PolyMet Project	VEG09
7037	The base water flow table used by PolyMet (page 4-67) apparently underestimates low flows during winter. Real data needs to be obtained, not estimations. ...There is no mention of containing leakage into the water table from the bottom of the mining [pit] itself...The PolyMet SDEIS does not address these essential issues [ground water treatment/reuse]...	WR003, WR130

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark S Roalson (42805)		
7056	IF THE GOVERNING AGENCIES (DNR & MPCA) CANNOT MAKE TWO CORPORATIONS [Cliff's Natural Resources and LTV at nearby Dunka Mine, northeast of the proposed NorthMet Complex] MITIGATE POLLUTION SEEPAGE OVER A FIVE-DECADE PERIOD, THEN THE REFULATING AGENCIES WILL NOT MAKE ANY OTHER MINING CORPORATION ACT ACCORDING TO LAWS AND REGULATIONS, EITHER.	SO02
19826	I did not see emergency mitigation plans for spillages or bursting of tanks of mining chemicals like sulfuric acid and other solutions...Flood overflows of tailings ponds are not addressed at PolyMet. PolyMet's SDEIS does not provide for its own hazmat team/contingency plans from what I can see. A man-made or natural disaster needs to be planned for.	PD22
<b>Sender Name (Submission ID)</b> Mark Sanstead (18301)		
12731	We are kind of weighing our heritage of natural resources, the water, the air, versus a short-term perspective of 300 jobs for a 20-year period by a company looking to start their very first mining operation.	SO01
15752	I am very concerned about denigrating our water resources for decades ahead for the short term benefit of mining. I fear the costs will far out way the benefits to our state and our natural resources.	SO01
15753	I see few examples of successful copper mine reclamation. Please make sure we will not be paying a cost for generations.	FIN01
<b>Sender Name (Submission ID)</b> Mark Schoenecker (19958)		
1553	I am for the mining so jobs can be created	SO10
<b>Sender Name (Submission ID)</b> Mark Skelton (18078)		
3192	...it is my hope that the powers to be will look at this and will weigh, proportionately, the socioeconomic impacts to the science of this project...Imagine, if you will, two million man hours of construction, \$82 million of new federal, state and local taxes, \$232 million of direct wages,... \$330-plus million a year in direct output or the value of the metals coming out of the ground... the \$99 million in indirect wages, or the \$182 million in indirect output. It's time to do this project right, it's time to do this project now, and it's time to do this project here.	SO10
13230	The socioeconomic impacts: ...two million man hours of construction, \$82 million of new federal, state and local taxes, \$232 million of direct wages, and so forth. \$330-plus million a year in direct output or the value of the metals coming out of the ground. That doesn't count the indirect -- the \$99 million in indirect wages, or the \$182 million in indirect output. It's time to do this project right, it's time to do this project now, and it's time to do this project here.	SO10
<b>Sender Name (Submission ID)</b> Mark Snyder (58067)		
19829	I'm very concerned about the loss of wetlands that would resort from the PolyMet mine as well as the risk this places on nearby water resources.	WET15
<b>Sender Name (Submission ID)</b> Mark Sutich (18358)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mark Sutich (18358)		
14650	When we look at this project, I have 300 jobs for 20 years, that's not true. It could be thousands of jobs for centuries. There are standards being set here. And in the true fashion of Minnesota, we're setting 14 the mining standards. We're setting cutting-edge technology that is going to pass through the world.	SO10
<b>Sender Name (Submission ID)</b> Mark Trumper (45775)		
16353	The amount of time to treat the water is unreasonable, costly and unproven.	WR037, WR128, WR195
16354	Importantly as well, the big promise, getting some to buy into this project, is the prospect of jobs in an economically depressed area. This is a short sighted advantage. The jobs are few and short lived.	SO01
<b>Sender Name (Submission ID)</b> mark voorhees (38872)		
5379	Ask a question of Polymet "how many mines have been mined/on-going with the Polymet name"? What is their track record?	PD23
<b>Sender Name (Submission ID)</b> Mark Weis (3385)		
208	There has never been a successful mine of this type that the mining company has not filed for bankruptcy prior to the mine being successfully closed.	PD26
<b>Sender Name (Submission ID)</b> Mark Wihriala (14845)		
328	I don't want my great great great great great [x5] grandchildren to still be paying for the clean up .	FIN01, FIN10
329	Please wait until a time when technology catches up to leave the land as it was before mining.	PD32
13370	I'm concerned about the water quality of Minnesota's rivers, streams and lakes. I fish in these waters, I drink these waters, and I swim in these waters. I do not want them to be polluted, and I do not believe that the SDEIS is a sufficient cumulative analysis of water quality impact from PolyMet Mining.	WR111
13371	I am requesting that the State and Minnesota deny the wetlands destruction permit. The Section 404 permit should be denied because PolyMet's discharge would violate water quality standards, destroy animal and fish habitats and threaten natural resources for centuries to come.	COE03, WR115
13921	In closing , I ask you to take a personal interest in protecting us from corporate interest in the short term and provide us long lasting water quality that we all can live with.	SO01
<b>Sender Name (Submission ID)</b> Markus (Blom) Dandy (57255)		
17389	Lake Superior and the BWCA are at least as important to Minnesotans (& humans as well as other animals – that require clean water to live) Short term employment is nothing compared to the long term loss(es).	SO01
<b>Sender Name (Submission ID)</b> Marlene Voita (18234)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Marlene Voita (18234)		
13588	300 jobs to have environmental effect for 300 to 500 years when we won't be here and the company won't be here and how long will the company last? Twenty years at most? I really think that this has to be rethought, especially with the state-of-the-art now where PolyMet has never had a facility like this before, and none of the plants that currently exist can show that they have no environmental effect.	SO01
13591	I just don't think that it's appropriate to trade our future for 300 jobs and ruination of our land by the Boundary Waters or in the northern part of the state.	SO01
<b>Sender Name (Submission ID)</b> Marroquin, Illegible (58123)		
20014	This project is not worth the potential environmental impacts and risks...This mine will poison our drinking water, negatively affect wildlife and raise greenhouse gases as well as ruin our beautiful boundary waters.	GEN03
<b>Sender Name (Submission ID)</b> Martha Brummitt (18298)		
12709	Using wilderness travel as an avenue for educating others, I earn a living by leading youth in the Boundary Waters, teaching watershed education and exposing people to the pristine resources we have left. If this goes negatively, it could negatively affect my job security.	SO02
<b>Sender Name (Submission ID)</b> Martha Cleveland (38449)		
13617	The pollution concerns are monumental! The proposed solutions are ludicrous.	PD01
<b>Sender Name (Submission ID)</b> Martha Henrickson (54859)		
19339	[The PolyMet] project would create 360 stable jobs and an additional two million or more hours of labor by skilled construction tradespeople required to build the facility.	SO10
19340	The members of the Northwest Minnesota Construction Liaison Committee believe that the Poly Met project promises both economic opportunity and protection for our environment. All residents of Northern Minnesota will derive economic benefit from the project.	SO10
19349	The company has pledged to take environmental protection measures that will ensure we can have sound economic advancement while protecting the natural resources and environment ...The PolyMet project promises botheconomic opportunity and protection for our environment.	SO10
<b>Sender Name (Submission ID)</b> Martha M Ritter (57270)		
17410	Why would we sacrifice our land, fresh waters (eventually including Lake Superior) for 100's (at least 500 years) with no proof (data) indicating this can be done without system pollution?	WR128
17411	Where is the proof that initiating companies can and will afford and carry out appropriate remediation	FIN01
17412	and how do the people who live here (along with other life forms that are to be protected under EPA dictates) do for potable H2O in the meantime over our future 100's of years?	PER12
<b>Sender Name (Submission ID)</b> Martha Morse (43721)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Martha Morse (43721)		
12653	The statistical model which was used to determine the mine’s environmental impact is flawed in that it does not take into account the worst case scenario but only outcomes with the greatest probabilities. Consequently, the SDEIS underestimates the potential human, environmental, and remediation costs....	NEPA08
15091	The probable scenarios in the NorthMet/PolyMet SDEIS do not account for less frequent but certainly occurring real events, such as Duluth’s recent 500-year flood which could cause an overflow of the tailings ponds. The tailings ponds and mining and mitigation plans in the NorthMet/PolyMet proposal do not adequately protect the public or the environment against the effects of such infrequent but certainly occurring events.	WR057, WR077, WR180, WR193
<b>Sender Name (Submission ID)</b> Martha Roberts (43118)		
16584	We need to recognize that not only our economic well-being and sustainability, but also human survival, depends on protecting and restoring the natural environment and the biological systems that create and maintain life. Minnesota is part of a global ecosystem and climate, and we will not exist as a species without this ecosystem remaining in balance.	SO01
16585	There is no level of “financial assurance” that PolyMet can give Minnesota that will assure the ongoing LONG TERM protection of northern Minnesota’s wetlands, Superior Forest land, surface water and ground water quality, and the protection of threatened wildlife that depend on these natural habitats.	FIN11
16586	Humans exposed to mining ground water pollutants face serious long-term health risks, and we have already seen (and should have learned from) the increased Mesothelioma Cancer risk for miners exposed to toxic air quality in mining work sites in northern Minnesota.	HU03
16588	the proposed plan for water treatment of surface waters does not address the very high risk of polluting ground water, especially when you consider what the plan is for “reclamation.” The DNR’s description of PolyMet supposedly “reclaiming” its buried waste by covering it with a plastic membrane, filling up the mining pits with back water and then topping them off with a “reclaimed wetland” is science fiction! This is a ground water disaster waiting to happen.	WR067, WR195
16589	The proposed plan does NOT comply with the Superior Forest Land and Resource Management Plan! Locating a highly-polluting mine site that will produce 20 years (probably more) of unimaginable amounts of sulfate, heavy metals and mercury run off from stock pits, mining pits and tailings basins, as well as wipe out over 6,000 acres of natural wetlands and forests and make our rivers, streams, Lake Superior and ground water toxic, does not protect valuable ecosystems!	LAN04
16590	Exchanging multiple parcels of private land for a large tract of publicly-owned Superior National Forest Land is NOT “in the long-term public interest of the people of Minnesota,” or of the other wildlife and living organisms that also rightfully reside in our state. ...Nor does this proposed mine “consolidate federal ownership.” How does excavating over 6,000 acres of preserved forest and wetlands in a trade for MULTIPLE scattered parcel sites of private land (some of which has to still be restored to a natural wetland state) in any way provide “consolidation” of lands, or protect large enough habitat tracts that wildlife can actually survive and live in an undisturbed ecosystem?	LAN01, LAN04
16592	So, the BIG QUESTION is: Will Minnesota will just continue the escalation of land development and disturbance, splitting up wild lands into smaller and smaller parcels due to human population pressures and intensive pit mining financial interests, and other resource removal, until we have no wild lands left?	SO04
<b>Sender Name (Submission ID)</b> Martin and Teresa Theobald (44682)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Martin and Teresa Theobald (44682)		
7146	PolyMet has not shown that they can protect the environment adequately.	PD01
7149	They continually try to cloud the topic of environmental protection with talks of new jobs.	SO04
<b>Sender Name (Submission ID)</b> Martin Cooney (45167)		
8754	When Polymet is gone, by their own admission, they will have left an environmental mess that will cost millions to clean up. There is no mention of where the clean-up money will come from	FIN01
8760	the State's recreation and tourist industry crippled, and the local communities hurting once again from boom and bust mining.	SO02
8761	Require a very conservative level of financial assurance escrowed up-front	FIN05, FIN08
8762	As we know, Polymet will poison these waters as an inevitable by-product of its mining and leaching process.	WR111
8764	Polymet is proposing to create jobs in Minnesota for a maximum of twenty years, at best.	SO02
8767	Polymet claims that they can limit the spread of the poison by employing revolutionary new technologies to mitigate the risk of environmental damage. As I understand, these new mitigating technologies are unproven. Minnesota should not be the laboratory in which Polymet finds out if these technologies work or not.	WR128, WR143
<b>Sender Name (Submission ID)</b> martin dahlke (21517)		
14551	The financial assurance section of the SDEIS is inadequate and needs to be changed to reflect details about how much money would be required to pay for cleanup and in what form it would be held.	FIN05, FIN08, FIN13
14552	Provide details of the calculations used to arrive at the estimated closure and long-term treatment costs in the current draft	FIN05
14553	Provide details of the forms that would be used to ensure that financial assurance is both bankruptcy-proof and would provide adequate income for hundreds of years of water treatment	FIN01, FIN08
14554	Identify other responsible parties (e.g. major investors like Glencore) that will be held responsible for long-term cleanup should PolyMet go bankrupt or be unable to meet their obligations	FIN01
14555	Account for reasonably foreseeable challenges that might increase the costs of cleanup and long-term site maintenance, and factor that into the calculation for the what would constitute adequate treatment	FIN05
<b>Sender Name (Submission ID)</b> Martin Dietl (36727)		
14403	The BWCA is far too precious a resource to risk to a company and an industry that has a long history of polluting and ruining the environment.	SO01
<b>Sender Name (Submission ID)</b> Martin Makinen (9309)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Martin Makinen (9309)		
13724	•The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Martin Rigney (45420)		
11319	Given the value of this natural wonder I can imaging no justifiable reason not to require specific testing to confirm that water discharged from the mine site does not and indeed cannot enter the BWCA and I see no indication of this plan in the SDEIS	WR024, WR071, WR081, WR111, WR175
<b>Sender Name (Submission ID)</b> Martin Running (18325)		
13905	This is a tremendous opportunity for the state of Minnesota and local people. I don't think we should let this go. And I don't think that we should have that much land tied up just so a few people can paddle canoes around.	SO10
<b>Sender Name (Submission ID)</b> Martin von Euw (43030)		
12478	Even with the best intensions and plans, accidents can occur. ...If there are any releases of sulfuric acid to the soil, surface water and/or groundwater, then long-term significant environmental clean-up will be needed.	WR202
17039	PolyMet has absolutely zero experience in operating a copper nickel mine. I believe that the MN DNR should not allow a company to undertake such a huge mining operation without a record showing that they are a qualified company to safely operate the proposed NorthMet mine.	PER02
17040	Glencore should be identified as the lead company in this effort. PolyMet does not have the resources to provide financial assurance for environmental clean-up.	FIN01
17041	I am concerned that if the PolyMet mining EIS is approved by the MN DNR and mining permits are issued that it will allow copper nickel mining to proceed in other areas of the state, such as near the Boundary Waters Wilderness Canoe Area. The MN DNR should be very aware of how their decision on the NorthMet mining project will affect other proposed mining plans in the state.	PER07
17042	This project does not reflect the MN DNRs mission statement: "...to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life."...Based on the fact that sulfide mining has never been conducted without negative environmental impact, the proposed NorthMet mine is not expected to create a sustainable quality of life within the area of Hoyt Lakes and the Lake Superior watershed.	PER40
<b>Sender Name (Submission ID)</b> Marty Seifert (11620)		
2300	One question 0 a 500 year water mitigation issue has been discussed. My understanding is that this is a grossly exaggerated number.Can you please give more exact clarification for water clean-up?	PD03, WR036
7388	A 500-year water mitigation issue has been discussed. My understanding is that this is a grossly exaggerated number. Can you please give more exact clarification for water clean-up?	WR036
<b>Sender Name (Submission ID)</b> marv schuety (45557)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> marv schuety (45557)		
15895	should not be built anywhere that would impact any wildlife in the state of minnesota or any other state . The wildlife has sufferd greatly just from home builders ,not to mention other businesses that are built in wildlife areas . The declineing moose population should speak for itself in this matter without any input from the public ,unless your goul is to make the moose and other animals exstinct in minnesota .	WI01
<b>Sender Name (Submission ID)</b> Mary Alice Harvey (42760)		
14513	The length of time that polluted water will need to be treated ( 200 years and 500 years) appears to far exceed the time that their company will be around to pay for any costs in excess of estimates.	FIN01
14514	Water is our most precious resource, -- most necessary for life. Are we gambling with it? Water is a scarce resource, that is likely to prove more valuable than precious metals.	WR195
<b>Sender Name (Submission ID)</b> Mary Amundson (44204)		
11681	corporations promise to clean up the messes that they create and often it is done partially or not at all ... Sometimes tax payers bear the cost of whatever cleanup must be done.	FIN01
11683	there is the issue of health related problems from pollution which can be permanent and sometimes fatal.	HU03
11684	None of the benefits from this mining can ever offset the detriments to health or pollution of the environment, locally or globally, and the effects on wildlife.	SO01
13383	Once land, water, air and wildlife are destroyed, they never are completely be pristine any more and the dangers from the pollution go on for a long, long time.	VEG10
13386	Also, there is the issue of health related problems from pollution which can be permanent and sometimes fatal.	HU03
13387	None of the benefits from this mining can ever offset the detriments to health or pollution of the environment, locally or globally, and the effects on wildlife	SO01
<b>Sender Name (Submission ID)</b> Mary Anderson (43860)		
6872	[I am concerned about the] negative impact that [this project] would have on the environment.	LU06
<b>Sender Name (Submission ID)</b> Mary Ann Lundquist (38699)		
11898	Though a few hundred jobs for up to twenty years would be important in the short term it makes no sense to risk the disastrous pollution for up to 500 years... We need long lasting jobs here in Minnesota in industries that are forward looking and do not destroy our land and water.	SO01
11899	I cannot get over the admitted fact that there has NEVER been a copper nickel sulfide mine that has not leaked. We need to protect our land and water.	WR023
<b>Sender Name (Submission ID)</b> Mary Arps Thompson (18786)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary Arps Thompson (18786)		
9949	Again PolyMet has prepared an SDEIS with flawed data & inaccurate information.	NEPA09
10677	Again PolyMet has prepared an SDEIS with flawed data & inaccurate information. If they can't get this right, how will they protect the most precious resource we have, our water.	WR071, WR072, WR189
11698	Economics...what will be the cost of cleanup & who will pay? A shell corporation with no real assets?	FIN01
11947	Again PolyMet has prepared an SDEIS with flawed data & inaccurate information. If they can't get this right, how will they protect the most precious resource we have, our water.	NEPA15
13391	Sometimes the best management is leaving resources where they are. Especially when removing them means damaging an even more valuable resource, our clean water.	SO01
13392	Economics...what will be the cost of cleanup & who will pay? A shell corporation with no real assets?	FIN01, FIN02, FIN05
14245	Sometimes the best management is leaving resources where they are. Especially when removing them means damaging an even more valuable resource, our clean water.	NEPA06
<b>Sender Name (Submission ID)</b> Mary Bjornsgjeld (30266)		
10994	This mining that is proposed is a dirty deal that threatens the health of watersheds and eco-systems for miles around the proposed site.	WR111
13854	Just say NO it is not worth the threat to natural resources(includingwildlife) and public health!Say NO to big business.Say NO to pollution.Say NO to sulfide mining in MN.	SO01
<b>Sender Name (Submission ID)</b> Mary Boranian (54850)		
19031	coal burning plants will potentially supply the electricity needed to extractmetals on our Iron Range. Coal pollutes the air, land, and water.	AIR01
19034	Water moves. Containment walls leak and break. Look at the history ofmining in wet places. You can look to the poisons in liquid form that have contaminated the Danube River, West Virginia, South Carolina.	WR023
19035	State Auditor, Rebecca Otto, knows numbers. She knows that Minnesota taxpayers will be footing the bill for years for all troubles caused by this gargantuan [PolyMet] project.	FIN10
<b>Sender Name (Submission ID)</b> Mary C Kaeter (54760)		
19224	Moose, Lynx, and Wild Rice. Analysis of the impact on animals, their habitat, and wild rice beds is lacking in PolyMet's statement.	VEG04, WI01, WI02
19226	Centuries of Water Treatment Required and Tax Burden. Minnesota law requires that a closed mine site be "maintenance free," but PolyMet's mine plan calls for 500+ years of water treatment. Mining companies often declare bankruptcy and walk away from closed, polluting mines. Minnesota law requires a damage deposit that is supposed to cover cleanup and pollution costs, but PolyMet's mine plan includes no details about the damage deposit.	FIN01, FIN10, FIN14

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary C Kaeter (54760)		
19228	Glencore, currently 25% owner of Poly Met, has a long history of environmental pollution, human rights violations, and anti-labor practices.	PER02
19229	Water Data Errors. DNR hydrology data show that the PolyMet water model significantly understates the amount of water flow in the area, which makes PolyMet's pollution and cleanup estimates inaccurate.	WR052, WR091
19231	Mercury and Air Pollution. Poly Met would emit dangerous amounts of mercury every year, as would the coal plants supplying power to the mine. Carbon emissions would dramatically increase due to the increase in coal power, in opposition to Minnesota's stated goal to reduce carbon emissions.	AIR02
19232	Wetlands. PolyMet would destroy valuable wetlands. The land swap they propose understates the amount of wetlands that would be destroyed. The land swap PolyMet proposes would be far away from the mine site so is not an equitable or equivalent swap.	LAN06, WET14
19233	Health Impact. PolyMet's statement has not addressed potential health threats in the near as well as distant future.	HU01
<b>Sender Name (Submission ID)</b> Mary Campbell (52225)		
16219	While there may be some positives in terms of jobs for a few people, the long term effects are likely to be devastating.	SO01
<b>Sender Name (Submission ID)</b> Mary Cunningham (44305)		
10332	I believe the environmental impact statement is inadequate, and I ask you to suspend any decision about the Draft EIS until these problems have been corrected.	NEPA15
10333	I disagree with the way the current (Supplemental) Draft EIS disregards the concerns of the Fond du Lac and Grand Portage Tribal Governments, the 1854 Treaty Authority, and the Great Lakes Indian Fish and Wildlife Commission.	CR01, CR06
10336	the PolyMet review process used incorrect maps in the environmental impact statement that give the impression that mine waste is geographically isolated from the BWCA watershed when it is not. The maps used include incorrect outlines of the One Hundred Mile Swamp which is downhill from the mine site and will collect acid and heavy metal laced run off from the mine.	WR024, WR080, WR081, WR111, WR175
<b>Sender Name (Submission ID)</b> Mary Davis (50088)		
13029	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Mary Dickson (44537)		
10078	[Polymet] cannot guarantee that they will be around for the next 500 years. Our water, our wildlife is our most valuable resource and we cannot put it in further danger.	WI01, WR115
<b>Sender Name (Submission ID)</b> Mary Disch (18266)		
13881	At this point I am not in favor because my concern primarily is pollution affecting the watershed for Lake Superior and especially the wild rice area in that sense. And I'm concerned about whether the assurance will be enough to clean up, because the pollution is inevitable.	WR111, WR156

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mary Disch (18266)		
13882	I'm concerned whether PolyMet is -- I know it is a new company, but it is funded by other companies' money, and what their track record has been.	PD23
13883	My concern, too, is that opening this area to copper sulfide mining might open it up to more of that, and what the cumulative effects might be, and my concerns of the cumulative effects on the people that live nearby and the water quality of the Hoyt Lakes, which I think is pretty close.	CU04
13884	I would just like to see more concern and overseeing what -- my question is when PolyMet says they are going to do this, how often does that happen? And is there a way of assuring that that happens?	PD22
13885	And my concern, too, that wild rice, when I talk to people, it moves around, so it is not like you can say this specific area has wild rice. So it is essential that the area has clean water so that wild rice can move to where it needs to move.	WR154
13886	And I heard that the mercury is more up, and fish, with the higher sulfate levels, and so that's part of my concern, whether those levels will be safe enough for fish.	MERC02
<b>Sender Name (Submission ID)</b> Mary Dosch (19508)		
2853	The SDEIS says on pages 5 through 377 that impacts on moose will be discussed in the cultural resources section 5.2.9. However, neither in that culture resources section nor in the cumulative impact section mention even one word about moose.	WI01
9087	I respectfully ask that ALTERNATIVES to the open pit mine, specifically an UNDERGROUND MINE, be studied. Since PolyMet has acknowledged that an underground mine could access copper and nickel, and since an underground mine would be far less destructive to the habitats of wildlife species in impacted areas.	ALT06
14814	The PolyMet project would harm moose due to habitat, fragmentation, and loss...Moose are important to the Indian bands under treaties and (inaudible)...The PolyMet SDEIS is inadequate in that it needs to be redone to reflect the cultural affects of loss of moose habitat at the PolyMet mine site and also the cumulative adverse impacts on the endangered moose.	WI01, WI02, WI09
16339	For example, moose are already in substantial decline and the habitat loss that would inevitably occur if PolyMet were to mine would expedite further losses for our priceless moose population.	WI01, WI02
16340	In addition, many species of birds whose homes would be in harm's way, e.g., birds in the St. Louis River Estuary like Common Loons, Hooded Mergansers and Belted Kingfishers, need to be considered when weighing the pros and cons of this proposed mining project.	WI01
16341	PolyMet's plan for an open pit mine would directly destroy more than 900 acres of wetlands and could indirectly destroy more than 7,351 additional acres of wetlands in the Partridge and Embarrass River watersheds due to pollution and changes in hydrology.	WET10
16342	The proposed wetland mitigation only covers the 912.5 acres of direct wetland impacts. Therefore, the more than ten miles of additional wetlands projected to be "indirectly" impacted by water drawdowns and toxic materials will likely be permanently harmed as the bogs and coniferous swamps in harm's way are extremely difficult to restore. Thus the SDEIS, by not addressing the impacts on these "indirectly" impacted wetlands, is INADEQUATE in that respect.	WET01
16343	Also, where pollution from the mine pits, mine wastes and tailings piles seeps up from surface ground water flow to wetlands, it is virtually certain that PolyMet's discharge would violate water quality standards.	WR064, WR070
16344	Furthermore, PolyMet's excavation and thus changing hydrology in wetlands would increase mercury loading to wetlands and streams and increase mercury bioaccumulation in fish, thus putting human health at risk.	HU03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary Dosch (19508)		
16347	Given that PolyMet's own mine plan admits that millions of gallons of polluted water will seep off site, uncaptured and untreated, and that this will continue for hundreds of years, I have to ask how we can even consider giving PolyMet the green light.	WR195
16348	...by giving PolyMet the go-ahead, we would be getting 20 years worth of mining jobs (SHORT-TERM GAIN) while incurring at least 500 years of pollution and perpetual water treatment (LONG-TERM LOSS). Furthermore, perpetual water treatment is not maintenance free.	PER04, SO01
16350	Currently the region that would be impacted by the PolyMet mine is a haven for tourists, fishermen, and outdoor enthusiasts like me... By giving PolyMet the green light and thus setting a precedent for numerous other mining companies to follow suit, the seeds of our own destruction as a place of retreat and purity and sanity will be sown.	WILD02
16351	Furthermore, the SDEIS should be rejected as it gives no detailed information as to how 500 years of water treatment will be paid for.	FIN01
<b>Sender Name (Submission ID)</b> Mary E. Dosch (10336)		
9347	On page after page it says that in the event that modeling shows violations of water quality, PolyMet will "adaptively manage" the problem. Once pollution is in groundwater it is TOO LATE to fix.	WR130
10684	The SDEIS doesn't provide even the most basic information to support its predictions. How much polluted wastewater would be going back and forth through nine miles of pipes? What is the total volume of wastewater in tailings and processing residue? Just how polluted is the wastewater in waste rock piles, pits, sump ponds, the tailings basin and the hydrometallic waste dump? Without this basic information, we can't estimate what would happen if PolyMet's almost perfect assumptions - not based on anything in the real world - don't come true.	PD03, PD15, PD30, PD36, WR057, WR060, WR182, WR189
10694	Access to clean water should be the birthright of all - humans and non-humans alike. We have no right to jeopardize that birthright.	WR195
<b>Sender Name (Submission ID)</b> Mary Ellen Kremposky (22900)		
12164	Lake Superior retains water for about 200 years. Any mining waste inputs would last for centuries.	WR111
13971	Also, tourism is a big source of income and should be protected not damaged by mining operations.	SO02
<b>Sender Name (Submission ID)</b> Mary Everest (44551)		
11775	The PolyMet mine would violate the 1854 Treaty between the United States and Minnesota Ojibwe bands. This treaty guarantees the right to hunt, fish, and gather in the location of the proposed mine. The land must remain intact, including the animals and plants that the Ojibwe hunt, fish, and gather.	CR01
11781	However, the proposed mine would destroy wetlands and habitat for animals and plants fundamental to Ojibwe life.	VEG03, WI02, WI09
11783	In addition to habitat destruction and removal, the proposed mine would generate unacceptable levels of mercury and sulfuric acid contamination in the watershed, subsequently turning food into poison.	MERC02
<b>Sender Name (Submission ID)</b> Mary Gallet (42507)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary Gallet (42507)		
15400	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	HAZ02
<b>Sender Name (Submission ID)</b> Mary Gover (40969)		
8358	[The SDEIS] fails to give appropriate weight to the fact that every copper/nickel sulfide mine located in a watery environment has resulted in contamination of surface and/or ground water.	WR023
8367	I understand (from the program on MPR) that large piles of tailings remain from past PolyMet mining, and that the effluent from these tailings fails to meet MN water standards. Accordingly, I urge the DNR to require that PolyMet clean up the existing tailings before it is allowed to generate any more.	HAZ01
<b>Sender Name (Submission ID)</b> Mary Haltvick (47379)		
12281	I believe that PolyMet's plan for sulfide mining does not sufficiently address its potential to do irreversible damage to the environment and the health of the people who live and work in the communities that would be affected.	HU03
12293	My first concern refers to the permitting required by Section 404 of the Clean Water Act. The wetlands proposed for destruction are priceless and form part of a broader biotic system. The 913 acres to be destroyed and the additional over 7000 acres at risk of being degraded by subsequent air and water pollution from the mining operations represent an unprecedented loss of wetlands for Minnesota.	COE03
12299	The SDEIS does not factor the real value of the lost ecosystem into its calculations. Land has value but so do nature and natural processes. The science of economics rarely makes this kind of calculation.	SO04
12305	The historical record... shows that sulfide mining in a water-rich environment has historically resulted in surface and ground water pollution with toxins that are harmful to human life. I don't believe the SDEIS sufficiently addresses the risks of this kind of mining in a water-rich environment.	HU01, WR023
17876	On paper the plan to replace these precious wetlands might look like a fair "exchange" if one is just counting acreage and size, but what is lost is an aquatic ecosystem of rivers, creeks, streams, ponds, swamps, land and vegetation that provide habitat for wildlife and maintain the quality of the watershed. Can the lands offered in the land exchange proposal really compensate for a lost ecosystem, especially if those lands are outside the affected watershed?	LAN03
17878	This area is rich in water but unfortunately many of the bodies of water in the area are already identified by the MPCA as "impaired waters" due to elevated levels of mercury. This, therefore, is a proposal to mine in an already compromised area that mining will put at further risk. The water quality models used by PolyMet are guesses and assumptions about how mining might affect the water, but they are unsubstantiated and without evidence.	WR158, WR189
<b>Sender Name (Submission ID)</b> Mary Halvorson (44630)		
15926	I am not at all convinced in plans for clean up and oversight	PD01
<b>Sender Name (Submission ID)</b> Mary Heise (46594)		
9154	I have serious concerns and doubt that adequate funding will be available to address any accidents or incidents that occur during mine operations and especially after the mine closes. Secured funding also needs to be available for the lengthy water treatment process after mine closure.	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary Heise (46594)		
9155	How is the funding guaranteed to be there even hundreds of years after mine operations cease?	FIN01
9156	It is important to have all of the necessary funds readily available throughout the entire water treatment period of 500+ years so that clean-up costs do not become a burden on Minnesotan residents.	FIN01
9157	How is inflation and any unforeseen complications of treatment being calculated into Polymet's closure costs? How can a person predict the value of the dollar that far in the future?	FIN05, FIN08
9158	It does not adequately look at reducing impacts to wetlands by considering underground mining vs. open pit mining. Economic feasibility is not supposed to be the primary factor for alternative methods in an EIS.	ALT01, ALT06
9160	What evidence is there that the proposed treatment of contaminated water by reverse osmosis actually works on projects of this scale?The water treatment process is not specific enough. What are the plans for the toxic sludge generated by reverse osmosis? How is the reverse osmosis system guaranteed to keep up with the quantity and continuous supply of contaminated water?	PD03
9161	The proposed wetland reclamation and regeneration would not equal the high quality wetlands that the mine will destroy.	WET05
9162	What are the effects on human health, especially in the unborn and very young, of exposure to the pollutants emitted into the air and water, especially as these pollutants accumulate to higher levels?	HU01
9165	What insurance is there against underground drinking water contamination and what procedures will be followed to clean up any contamination that occurs?	HU01
9166	As abundant clean water becomes more scarce world-wide and thus more valuable, this resource should be weighted higher for impact considerations the farther the timeline of impacts goes into the future. For example, clean water is likely to be more economically and environmentally valuable 100 years from now than it is today, therefore, any long term negative impacts done now should be assessed as more harmful than is currently considered.	WR195
9168	What are the health risks to employees who are exposed to sulfide mining conditions?	HU04
9173	What is the potential for soil contamination away from the mine site and what health risks are present for people who come into contact with this soil, especially for those growing their own food?	HU01
9174	The Superior National Forest is a national asset and the proposed land exchange is not adequate compensation for U.S. citizens.	LAN03
9175	How will the survival and reintroduction of rare species found in the disturbed wetlands be assured after mine closure?	WI01
<b>Sender Name (Submission ID)</b> Mary Helen Stephens (38874)		
5381	Since we know that water continues to flow downstream forever till it reaches oceans, how can we protect those, especially children who live downstream from this proposed mine from the Mercury that will follow the waterways out of Minn. There must be some way to collect the chemical before it leaves the mine site, forever, not in a land based ground storage pit.	PD15

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mary Helen Stephens (38874)		
5382	DNR has a big job ahead of them. So many protections to human health, wildlife protections, environmental health protections, taxpayer protections, CleanWater Act Protections, Wild rice protections, etc.Don't think a few jobs are worth it? Stop the PolyMet mine before it causes damage to Minnesota.	SO02
12121	Ii would look more favorably toward the project of the proposed PolyMet if I could see a plan which considers the wildlife of Northern Minnesota. So far I do not see a reasonable plan to offer protection to the Moose population in Northern Minnesota.	WI01
12129	This mine in Northern Minnesota will use an inordinate amount of coal for powering the high use of electricity needed for their operations... Please ask DNR to require PolyMet to find a better source of power and leave the coal industry out of the picture.	PD39
12131	Up here water resources is a big issue = the possibility of the mining efforts to contaminate our waters and using an inordinate amount of available water.	WR111
<b>Sender Name (Submission ID)</b> Mary Holm (39873)		
14278	This mine will break forever the beauty of our North Woods, one of our most valuable industries in tourism and forestry products.	SO02
<b>Sender Name (Submission ID)</b> Mary Jane Nelson (54897)		
18840	In consideration of the fact that there has never been a successful sulfide mining operation ever, it is preposterous that the DNR and our elected officials would allow PolyMet and/or any company to proceed with untested and unproven sulfide mining methods in the State of Minnesota.	PD26
18842	No amount of money or jobs could possibly offset or compensate for the value of our precious citizenry and ecosystem. Who we are and the environment we have are priceless!	SO01
<b>Sender Name (Submission ID)</b> Mary Jo Kingston (35689)		
11284	With the history of desecration of our clean forests, lakes and rivers perpetrated by mining companies, it is not unreasonable to wonder what the hurry is in opening this mine? A delay of 10 or 20 years before undertaking this project would allow development and proof that they have indeed found ways to mine these elements safely and without damage to the environment.	PD32
<b>Sender Name (Submission ID)</b> mary Jo straub (39886)		
14280	Those who live in the horrible drought conditions of the west know how extremely valuable water is, especially clean pristine water such as ours. Why on earth would we want to sully and poison our water gem.	WR115, WR195
14281	No amount of jobs are worth ruining, or even risking the ruin of, our precious natural resource. The Boundary Waters---one of the wonders of the world. Invaluable. Lake Superior--an even greater possession. Why risk it?	WR115
14282	If people need jobs give them jobs through rebuilding our infrastructure and installing renewable energy. That could happen easily and quickly if the political will exists.	NEPA02
<b>Sender Name (Submission ID)</b> Mary Judd (36629)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mary Judd (36629)		
11125	Enough covering up has happened in various "schemes" for pushing through projects that hurt people, the earth, environment, and air that people are not so easily scammed as before. What the mining company says will not happen and what actually will happen are two different outcomes.	HU03
11127	Studies on the factors affecting humans needs to be studied. More studies by environmental protectors need to be done and provided to the public without the results being altered.	HU01
<b>Sender Name (Submission ID)</b> Mary Kamps (27394)		
14749	It means quick profit for PolyMet and polluted waters across a wide swathe of Minnesota. We need to live within our means.	SO01
<b>Sender Name (Submission ID)</b> Mary Kanut (11250)		
735	this proposed site or any site for that matter for mining is basically game over for our climate, for our Boundry Waters, our drinking water, air quality and the list goes on and on	AIR11
<b>Sender Name (Submission ID)</b> Mary Klausen (37780)		
13730	Dirty energy is not the answer to our energy problems. Wind and solar would create as many or more jobs for Americans and keep our air and water clean while keeping us in clean energy for the long haul - longer than 20 - 30 years AND no clean up to worry about saving billions of dollars in clean up and future health care costs to Minnesotans and the fish and wildlife (some of us eat fish and venison).	SO01
<b>Sender Name (Submission ID)</b> Mary Lagaard (38280)		
13671	the hundred mile swamp which has been purported to be a filter for the run off from the holding ponds.This fragile ecosystem will be compromised by even low levels of uranium, radium, and radon. Additionally ground water supplies may be polluted by the listed materials. Minnesota's identity has been clean water. We loose not only an ecosystem, but a way of hunting, fishing, skiing, sledding, skating, kayaking which is part of our culture.	SO01
<b>Sender Name (Submission ID)</b> mary lawry (30511)		
12882	Have the company's methods of extracting content and proper handling of waste been reviewed? and their proposed response to any "accidental" discharge of same? the effect of said discharge on the environment? the cost to surrounding communities? Are the above in a written contract with a sizable monetary deposit (non-withdrawable) to begin cleanup of "accidental" discharges?	FIN01
12883	Have you considered the drift of pollutants into the waters of the entire Great Lakes?	CU06
<b>Sender Name (Submission ID)</b> Mary Lein (39545)		
6341	Please do not begin the slow destruction of these beautiful wetlands, rivers, lakes, and streams in Minnesota...Reconsider your plans and leave this pristine beauty in tact.	LU04
<b>Sender Name (Submission ID)</b> Mary Linden (16048)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary Linden (16048)		
9540	The short term gains for a few will not be worth the long term losses for the many more who may suffer from the consequences of this mining operation.	SO01
11565	The company says they will have a long wall to contain waste water down to the bedrock. Walls develop cracks over time. It has always happened and will happen again.	WR019
11566	Early in the debate about the mine the company reported that they would create new wetlands to make up for the ones they destroy during their project. To me it seems unlikely that a man-made wetland will ever truly replicate a natural wetland. Each place has its own unique mix of substrate, water chemistry, micro-organisms, plant and animal life.	WET05
15804	To build such a mine near the Boundary Waters Canoe Area will bring additional development to the doorstep of an important Wilderness Area, degrading its pristine nature.	WILD02
15826	In addition, the Native American people who rightly claim the authority to harvest wild rice, should not find lakes and waters that sustain them now, polluted by increased sulfides due to copper mining.	CR01
15835	While copper is used in industry and even in the plumbing of many homes in Minnesota, how much copper from the Northmet mine will be needed or used by Minnesotans? Polymet is a Canadian company with big contracts with China.	PD25
<b>Sender Name (Submission ID)</b> Mary Lou Salawater (45115)		
8354	Lots of money has recently been spent in efforts to clean up the St. Louis river, why would we now allow a mining company to pollute it some more....	WR111
16735	Only a few will profit and we will all lose our natural resources.	SO01
<b>Sender Name (Submission ID)</b> Mary M Anderson (57932)		
19840	I am gravely concerned about irreversible damage to our amazing water RICH environment.	GEN01
<b>Sender Name (Submission ID)</b> Mary Manns (43695)		
15098	Please don't allow Polymet to mine and destroy our beautiful north woods.	WILD02
<b>Sender Name (Submission ID)</b> Mary McGilligan (11592)		
2251	Listen to those of us opposed to polluting our Arrowhead Region for the next 500 plus years. No amount of money put aside by the mine companies can assure safe handling of processes that have never been done safely ANYWHERE!	PD24, PD06, WR137, WR189
2251	Listen to those of us opposed to polluting our Arrowhead Region for the next 500 plus years. No amount of money put aside by the mine companies can assure safe handling of processes that have never been done safely ANYWHERE!	FIN01, FIN05
3252	A few jobs for a few people for 20 short years is not a fair exchange for destroying our ground and surface waters for ever.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary McGilligan (11592)		
3252	A few jobs for a few people for 20 short years is not a fair exchange for destroying our ground and surface waters for ever.	SO01
<b>Sender Name (Submission ID)</b> Mary Ness (11598)		
2260	Can the biodiversity and quality of wetlands that have been reclaimed in the land exchange be reproduced? Can they be of equal ecological value?	WET14
2260	Can the biodiversity and quality of wetlands that have been reclaimed in the land exchange be reproduced? Can they be of equal ecological value?	WET14
2261	I am bothered by changes made to Minnesota environmental standards that have made it easier for this project to move forward, while at the same time saying the mining should be done here because of our strict standards.	PD01
2261	I am bothered by changes made to Minnesota environmental standards that have made it easier for this project to move forward, while at the same time saying the mining should be done here because of our strict standards.	PD01
<b>Sender Name (Submission ID)</b> Mary P Disch (44956)		
9369	I have concerns about the pollution of waters where wild rice grows. Since wild rice moves around and does not stay in one area, it is crucial to protect the waters in areas beyond where wild rice is presently growing. Who will monitor these waters?	VEG04, WR139, WR154, WR157
9371	I am concern about the present pollution in the former taconite mine area where Poly Met plans to mine. Will there be clean up of the site before Poly Met would be allowed to startup? Who pays for the cleanup?	PD10
9372	Are holding ponds for tailings and debris of Poly Met's mining lined underneath to prevent leaching into the groundwater?...How often are covers replaced as they deteriorate over time. Is there plans for replacement of covers?	PD07, WR127, WR138
9373	Is the present plan to use reverse osmosis to clean the runoff a viable process? Has it been used and shown to prevent toxins and pollutants from entering water from the mining area? If the reverse osmosis process is put in place and fails to keep runoff within water quality standards, are there alternative methods to clean the runoff?	WR023, WR143, WR144
9374	Will enough money be collected from Poly Met to pay for the continuing cleanup of pollution of the water in the area and for how long? Who will pay these costs if Poly Met fails to? Will taxpayers pay for poor planning of cleanup costs?	FIN01, FIN05, FIN10
9376	How accurate are models that project cleanup processes. Is there an ongoing monitoring that corrects the models to represent the reality of the pollution being created?	PD29
9377	Will the surrounding residents be exposed to air pollution from the dust created by the mining and extraction process?	AIR07
17318	Can there be more aggressive ways to recycle the many minerals that are thrown into landfills every day in Minnesota, before mining for more minerals!	NEPA06
17319	I am afraid allowing Poly Met's planned mining operation will open new mines closer to the Boundary Waters area, a very sensitive area needing high water quality. I am not in favor of mining in the Boundary Waters watershed.	WILD02
17321	Is there accurate monitoring of runoff and water in the area to check pollution levels. Who monitors? Self monitoring by some companies has not always been up to standards. Will Poly Met self monitor or is there monitoring by outside reliable sources?	WR139

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary P Disch (44956)		
17322	How thorough is the regulatory process in Minnesota? Is this type of monitoring water quality in regards to mining already in place in Minnesota and has it been able to prevent water pollution from exceeding standards and reduce pollution that exceeds standards?	PER30
<b>Sender Name (Submission ID)</b> mary q mccallum (44958)		
8336	While I understand the economic boon it could create, I feel that this is very short sighted.	SO02
8339	With any sulfide mine there is risk of...acid mine drainage. Sulfide mining in water-intensive areas has never been done without contaminating surrounding waters. ... Groundwater would be contaminated in the mining process, the question is how badly and for how long. Pollution from acid mine drainage can persist indefinitely....	WR107, WR108, WR115
17125	One of the best things about living in this state is it's natural beauty, our access to natural resources for living, for recreation.	LU04
<b>Sender Name (Submission ID)</b> Mary Rose Fillip (38891)		
5401	Please carefully consider the world you are gifting to future generations. I tremendously enjoy seeing wildlife & the opportunity to get out into nature. With 500 years of toxic runoff, how would that be possible? The earth & its creatures are a gift, we are duty-bound to do our very best to protect it.	LU06
5403	Please join me in the fight to keep these [the Boundary waters] pristine & do not fall under the spell of big mining business.	WILD02
<b>Sender Name (Submission ID)</b> Mary Ruch (6547)		
10599	I am very concerned about mining where spills and runoff can flow into Lake Superior or its tributaries.	WR111
<b>Sender Name (Submission ID)</b> Mary Scott (58148)		
20011	there is a complete lack of backup plans if there are accidents polluting the environment with these heavy metals.	PD22
<b>Sender Name (Submission ID)</b> Mary Slattery (45240)		
9060	I suggest that PolyMet put in escrow the full amount of money it would take to do their 500 years of water clean up by reverse osmosis ,before they are able to get a permit to make the hugh profits they expect to make from the mine.	FIN01
9061	20 years of jobs are not more important than our water..	SO01
<b>Sender Name (Submission ID)</b> Mary St. Michael (49434)		
16879	Please reject the PolyMet NorthMet SDEIS as inadequate and reject the PolyMet open-pit sulfide mine and wastes proposal due to its unacceptable risks to human health.	HU03
16880	Fish in the lower part of the St Louis River are more contaminated with mercury than those in other regional waters. Downstream of the PolyMet project, the St Louis River and Embarrass, Wynne, Sabin, Esquagama, Colby and Whitewater Lakes are legally impaired due to mercury in fish.	AQ12, AQ28

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Mary St. Michael (49434)	
16881	The PolyMet SDEIS analysis of mercury risks is inadequate and misleading. The SDEIS' claims that mercury and sulfates - which increase mercury in the food chain - will be "captured" are unreliable. There are huge gaps in the SDEIS where there should be information on mercury concentrations and seepage from waste rock, peat overburden, tailings and liner leaks.	MERC20, WR158, WR197
16883	The SDEIS inadequately analyzes human health impacts of PolyMet's pollution. Not just mercury in fish, but impacts of manganese, lead and aluminum in water on the brain; impacts of air emissions including diesel, asbestos-like fibers, nickel and other particulates on cancer; and impacts of arsenic on cancer. The SDEIS does not explain potential harm to human beings, particularly for bottle-fed infants, children and the elderly, who are more vulnerable to the impacts of toxic pollution.	HU02
16884	The SDEIS completely fails to analyze any risks to workers on-site at the PolyMet mine or plant.	HU04
16885	The SDEIS fails to assess impacts on nearby residential wells from tailings basin groundwater seepage.	WR041
16886	The SDEIS inappropriately reduces the 70-year "lifetime" to 30 or 40 years to mislead the public about cancer risks at the PolyMet property boundary.	HU06
16887	The SDEIS arbitrarily denies effects of water pollution on the St Louis River.	WR111
16889	The SDEIS fails to recognize environmental justice effects of pollutants, such as methylmercury and arsenic, that may be found in fish, game and wild rice as well as water, and may cause particular harm to tribal members or low-income families who rely on fish, game and wild rice for subsistence.	SO01
16890	Reject the PolyMet sulfide mine project due to its unacceptable health and environmental health impacts on Minnesota infants, children and adults, including low-income families and tribal members who fish, hunt and gather for subsistence.	SO01
16891	Redo the SDEIS to disclose mercury concentrations and how much mercury is released directly or indirectly into surface waters from all PolyMet sources.	WR158
16893	Redo the SDEIS to assess mercury impacts without unreasonable assumptions, like the claim that almost all tailings seepage of sulfates would be captured.	WR018, WR022
16896	Redo the SDEIS to evaluate methylmercury accumulation in the food chain due to hydrologic changes to peat and wetlands as well as due to air and water pollution.	AIR05
16897	Redo the SDEIS to require a separate and clear Health Risk Assessment prepared in conjunction with the Minnesota Health Department to analyze impacts of all PolyMet sulfide mine and plant pollution releases and accumulations on health, including:... Description of the known human health impacts of all pollutants in PolyMet's air emissions and water discharges in language understandable to the public.	HU01
16898	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of potential impacts on residential wells from tailings seepage.	WR041
16899	[The EIS should include a Health Risk Assessment that incorporates a] Health risk assessment for on-site workers at both the PolyMet mine and plant.	HU04
16900	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of cumulative mercury risks, including actual hazard levels in lakes already impaired for mercury in fish.	HU01, MERC03, MERC10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary St. Michael (49434)		
16901	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis.	HU01
16902	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of all risks using a 70-year "lifetime" for exposures.	HU06
16903	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of cumulative risks of multiple chemicals and exposure routes (drinking water, fish, wild rice) on infants, children and the elderly.	HU02
16904	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of cumulative risk of toxic chemicals (mercury, arsenic) in fish, game, and wild rice on persons who rely on fishing, hunting and gathering for subsistence.	HU02
16905	[The EIS should include a Health Risk Assessment that incorporates an] Assessment of cumulative risk of methylmercury contamination of fish in the St Louis River and estuary for Lake Superior.	AQ28
16906	Complete the mercury TMDL study of the St Louis River before finalizing the PolyMet SDEIS or issuing any permits for the PolyMet sulfide mine project.	MERC22
16907	The PolyMet SDEIS is an inadequate assessment of human health impacts and the PolyMet sulfide mine and mine wastes proposal poses an unacceptable risk to the health of fetuses, infants, children and adults in Minnesota.	HU03
16908	The Minnesota Health Department found 1 out of 10 infants in Minnesota's Lake Superior Region are born with unsafe levels of mercury in their blood.	HU02
<b>Sender Name (Submission ID)</b> Mary Suelflow (43966)		
14936	My daughter lives in northern Minnesota and my husband and I enjoy getting back to nature when we go to visit her. She also rices in the area. ...It would be a shame to lose this natural and healthy food to mining. I am amazed that destroying this area is even being considered.	WILD02
<b>Sender Name (Submission ID)</b> Mary Tambornino (37814)		
16334	We have no examples of copper/nickel sulfide mine in a water rich environment that did not result in contaminated surface and ground water.	WR023
16335	350 jobs, many of them for specialists brought in to run the mines, is not enough to allow a "rape of the landscape".	SO01
19309	I find it hard to believe that any of this fits with DNR's Mission statement: "toconserve and manage the state's natural resources, provide outdoor recreation opportunities and ... provide commercial uses .... in a way that creates a sustainable quality of life" and to "manage .... and sustain healthy waterways and ground water resources" . In fact, I am certain that the proposal of PolyMet meets none of these.	PER40
19310	350 jobs, many of them for specialists brought in to run the mines, is not enough to allow a "rape of the landscape".	SO01
19311	We have no examples of copper/nickel sulfide mine in a water rich environment that did not result in contaminated surface and ground water.	PD26
<b>Sender Name (Submission ID)</b> Mary Texer (39023)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mary Texer (39023)		
5000	The request to allow sulfide mining in the Boundary Waters and Lake Superior Watersheds flies in the face of logic, documented environmental disasters and the science around this practice. We must not allow our environment and our water to be destroyed by this practice.	WR195
10636	If sulfide mining is allowed to go forward it is not a matter of if but when the disaster will happen.	PD01
14014	By looking only short term we would ultimately destroy some of Minnesota's greatest assets.	SO01
<b>Sender Name (Submission ID)</b> Mary Tripler (10359)		
512	My two major concerns are, first, the lack of real cost benefit analysis and, second, the lack of a definitive answer on who will pay the costs of clean up over the 500 years remediation will be necessary.	FIN01, SO07
515	As I understand it, remediation will be necessary for up to 500 years. What sums will be escrowed to cover those costs? What responsibilities will the mining companies have in perpetuity to care for the mess they leave behind?	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Mary Voight (20878)		
1858	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR195
16215	Neither the SDEIS nor the sulfide mine project are based on good science.	NEPA15
16217	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	HU01, MERC02, WR041, WR115, WR189
16218	This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Mary White (46152)		
10618	Duluth MN area have raised questions about the added chemicals into our air, soil, water and fish and how they may impact the quality of health for an entire region of the state. I don't believe the impact statement adequately addresses these concerns nor does it specify who will treat the polluted water and for how long.	HU01
16214	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR111, WR115
<b>Sender Name (Submission ID)</b> mary wilm (10406)		
524	I think this assurance needs to be created as a state water trust fund which will generate interest or which goes into something like our state's general fund.	FIN08
525	It reeks of pandering to the international mining companies at the expense our precious resource, a basic human necessity, water.	WR195

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> mary wilm (10406)		
527	These proposed nonferrous mining practices will create sulfates and acid drainage, as well as open the door to a myriad of greedy land and water exploiters. They are far too risky to exchange for the estimated 350 jobs.	SO01
1459	SDEIS does not require the absolutely essential step which is to make absolutely certain that the nonferrous mining companies pay the costs of ongoing and final cleanup up front, before any more steps authorizing their mining leases, facilities etc. It's too easy for them to liquidate through bankruptcy after the fact after ruining our water, Lake Superior and the BWCA lakes and rivers among other things	FIN01
<b>Sender Name (Submission ID)</b> Mary Wolszon (46187)		
8101	I am opposed to the Polymet proposal for many reasons, primarily because it seems a poor trade off for a project with a 20 year life span verses a project that could harm a precious natural resource for possibly hundreds of years.	PD01
8104	It's not even primarily an American venture. This Canadian company, with Swiss backing, will be hard to go after if things go wrong. Company chair, Tolry Hayward, has a particularly bad history to be making proposals from.	FIN04
8115	The proceeds from the waste tailings are to be placed in bins that I understand are already leaking. Even if not true, the potential for that in the future is very great.	PD10
8117	This project endangers many rivers as well, including Partridge and the Embarrass Rivers.	WR115
8118	The E.P.A. review of Polymet described it as inadequate and unacceptable.	NEPA14
8119	As a Minnesotan who goes to Ely often, I like what I see of how they are promoting eco-tourism. I believe many more jobs can be created in the long term if we have healthy forests and pure water ways. The Boundary Waters area is a national treasure. People come from all over to be in this environment which will become more of a treasure as the years go by, unless, by short sightedness, we fall for projects such as Polymet's, the Northmet Project and Twin Metals, LLC.	SO02
<b>Sender Name (Submission ID)</b> maryc (19908)		
1502	we value clean water and healthy air in all parts of this state...and scientists and geologists have noted that the PolyMet company can in no way guarantee the health and protection of the resources in northern Minnesota...The trade-offs are not worth it...to us or our future generations.	AIR11
<b>Sender Name (Submission ID)</b> marycarols2 . (43212)		
11567	Our northern Minnesota legislators and those supporting sulfide mining do not seem to seriously consider the implications of sulfide mining and its effects on the waters of Minnesota, a state that is known for its "10,000 Lakes." Our lakes, rivers, and streams define us. Will we show the rest of the world the protection of our waters comes first?	WR195
11568	Rep. Tom Rukavina was mistaken when he said, "This is a policy issue and not something for citizens to decide." Who has more right to decide than the citizens of Minnesota?	PER45
11570	Mining may provide some short-term jobs, but it can also drive away creative professionals and knowledge workers, destroy entrepreneurial culture, diminish quality of life and damage long-term economic vitality	SO01
11571	Why not wait until sulfide mining can be proven safe and done without damaging our waters?	PD32

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    marycarols2 . (43212)

11572 There would be 500 years of cleanup. Who will pay for that? ... Just imagine, in the year 2540, PolyMet is still standing by, guarding the water supply! It is far more likely, though, that after mine is no longer producing maximum profit, or maybe a little while after that, PolyMet, or its parent corporation, Glencore, will tire of pumping water and will just abandon the mine. We have a name for orphan mines like this — Superfund sites.

FIN01

11743 The path of pollution will flow into Basswood Lake, damaging a world-class fisheries and exposing humans to the toxic effects of methymercury.

MERC02

11761 One effect of mining has been the corresponding removal of other employment options. When the minerals are gone, the mines close, and there is little reason for other businesses to locate in areas stripped of a landscape that draws people to a community. Mining is the only option, but without minerals that option no longer exists either.

SO02

15788 Sulfide mining will not bring stability. The minerals are finite. When they are gone the mining areas will again be left struggling to find viable options. And this time our lakes will need perpetual treatment for acid and toxic heavy metals. Is this what we want for future generations?

WR195

15789 Let us assume for a moment that PolyMet manages against the odds — and they are really long odds — to contain all the sulfuric acid that it produces during mine operation. What happens when the mine closes?

PD01

15790 If Freedom Industries, the Department of Homeland Security and other government entities can't keep track of one storage tank in West Virginia for less than a quarter century, how are we going to keep track of a toxic site on Lake Superior for five centuries?

GT10

15892 today, Ely has seen an upswing in industries based on the natural beauty (Boundary Waters and Superior NF) including manufacturing, a large increase in summer home development with its associated construction jobs and ongoing service jobs and support of main street businesses...But the big problem is sulfide-ore mining. If current prospecting and mining holdings are developed, the Northwoods will be surrounded by a massive industrial mining district. The forests would be transformed and lost forever. No sulfide-ore mine has avoided extensive toxic pollution to waters, and the Northwoods is a high risk area for water pollution.

SO02

15894 Is mining inevitable? I think not. These are low grade deposits and are dependent on high prices and low costs. If China slows down, the numbers won't work unless the costs drop dramatically. The trend is for recycling (at least 1/3 of every product). All of this is the reason I say our Northwoods area is too valuable to gamble on the most toxic form of mining with little return and a lot of cost to us.

NEPA06

**Sender Name (Submission ID)**    marylougofcfp@aol.com (43230)

15817 THIS CORPORATION HAS NO ALLEGIANCE TO OUR STATE, AND AS A MULTINATIONAL WILL TAKE ITS PROFITS AND LEAVE US WITH THE RECLAMATION.

FIN01

15818 I FIND IT IRONIC THAT WE ARE SPENDING MILLIONS OF DOLLARS IN RESTORING OUR POLLUTED WATERS, WHILE CONTEMPLATING A COPPER SULFATE MINE IN NORTHERN MINNESOTA. THE MINE HAS THE POTENTIAL TO DESTROY EFFORTS THAT ARE BEING UNDERTAKEN AT THIS TIME

NEPA15

15819 WE WOULD BETTER OFF RECYCLING THE TONS OF PRECIOUS METALS THAT ARE BEING DUMPED IN LANDFILLS; AND IN THE PROCESS EMPLOYING PEOPLE IN AN INDUSTRY THAT RECLAIMS RATHER THAN ADDS TO THE DEVASTATION OF OUR ENVIRONMENT.

NEPA06

**Sender Name (Submission ID)**    Mason and Gwen Myers (45918)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Mason and Gwen Myers (45918)	
10284	Fissures in the bed rock that may open to the aquifer are incompletely and inaccurately mapped; better data is reported to be available from Canadian maps. I ASK that the SDEIS include accurate fissure mapping.	WR007, WR008
10286	Reusing Storage Site: Sulfide process tailings will be stored on an existing taconite tailings site that is known already to be leaking to the environment. Sulfide leakage should be expected.	HAZ01
10288	I attended the meeting in St. Paul and saw the diagram of the proposed system of sealing the bottom of a storage basin. The diagram showed a subterranean geomembrane intended to prevent leakage down to the aquifer and another geomembrane covering the pile to prevent rain from entering it. Very little made by man has survived 200 years and I doubt these membranes have been so tested. The cover is available for replacement but the underground one is not. The protection intended seems inadequate. I ASK that the SDEIS include consideration of leakage control with a punctured underground membrane.	PD17, WR127
10291	I understand the SDEIS does not address the possible failure of storage site containment methods, whereas the history of containing dangerous materials is a litany of failure... Failure should be expected at this site sometime in 200 years, if not during actual operations. I ASK that the SDEIS Consider modes of failure and demonstrate capability to respond so as to protect the environment.	PD22
10294	Model Flaw: The design model makes assumptions that seem intended to deliver the desired result, for instance, that 90% of drainage from storage basins will be captured and delivered to a treatment facility. This would require that underground piping would be installed and maintained so as not to fail in 200 years. It seems an overoptimistic assumption. ... I ASK that the SDEIS include the costs of repairing/replacing the system piping at 30 year intervals to account for breakage due to settlement of the piles.	WR131
10298	Reverse Osmosis: ... I learned that the product stream is about 10% of the input, the concentrated 90% discard stream presents disposal problems, the input stream must be pumped through the separation membrane at high pressure, that the membranes are fragile and require frequent replacement. I ASK that the SDEIS be expanded to include a line item-by-line item estimate of facility maintenance costs, including at least 3% inflation, for the 200 year period and that the proposed method of disposing of the 90% concentrated sludge stream residue be identified. Simply trucking it off-site is not adequate description.	PD03
10301	.. the SDEIS does not address control of fugitive, mineral dust from the mining operation or from the various transport operations involving ore and tailings. I would expect the wind-blown dust from sulfide ore and tailings to acidify the surrounding area and lakes ... I ASK that the SDEIS be extended to assess the expected damage to lakes and forests from fugitive dust.	VEG07
10314	The SDEIS admits to some pollution of the Partridge and Embarrass Rivers but the extent of it is calculated from a flawed model; the press reported that the rate of underground water transfer was erroneously measured. Combined with the overoptimistic assumptions for success of control of acid mine drainage the rate of stream pollution cannot be correct. I ASK that the SDEIS be revised to study accurately the stream pollution possible from the site.	WR003, WR189
10317	Putting a mine on top of a wetland will destroy a large and nationally important one. The concept of mitigating the loss by developing a wetland elsewhere is politically expedient but I doubt the hydrological feasibility of it. ... I ASK that the SDEIS designate the location of the mitigating wetland and include a hydrological report of its feasibility. And, it must be in the same watershed.	WET03, WET06, WET19

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mason and Gwen Myers (45918)		
10321	Another problem with a wetland-located mine is that the upwelling water is moved upward by a long-established pressure gradient. Putting a mine on top of it will not shut off that pressure gradient; and digging a 600 foot hole there will reduce the resistance against which the gradient must work. I would expect that the result would be a mine filled with water; which will need to be dewatered continuously; and the pumps will deliver the water to the nearest stream. But the water has been exposed to the sulfide bearing ore so it is now a contributor to acid mine drainage. And the aquifer is drained. And I would expect that the 600 foot hole would act as a drain sump for any ground water in the area. The effect would be to dewater the entire area and kill life in the receiving stream. I ASK that the SDEIS be extended to assess the effect of the mine on the aquifer and surrounding ground water.	WR086, WR120, WR171, WR179
10323	Water is Minnesota's most important commodity. ... it seems a poor idea to introduce sulfide mining into the wettest, most interconnected region of a state that sits at the headwaters of much of the continent and then proceed to open mine pits and build processing plants that will surely contaminate land and water in perpetuity.	WR195
<b>Sender Name (Submission ID)</b> Mason C and Gwen S Myers (21552)		
10074	(...), the proposed project, located in the Lake Superior watershed, will destroy or degrade thousands of acres of high-quality wetlands and cause permanent water pollution with sulfuric acid and toxic wastes.	WR001, WR115
10076	(...) the PolyMet Project would completely destroy 912 acres of wetlands, 65% of which the DNR describes as high-quality.(...) the SDEIS admits that an additional 7,351 acres of wetlands would be degraded due to air and water pollution, mine dewatering and diverting water from wetlands.(...)The wetlands that would be destroyed or harmed by the PolyMet mine are water resources of national and international importance. Though the environmental review process should propose alternatives, nothing is suggested to reduce impacts to wetlands in the SDEIS.(...) There is no mitigation for the indirect wetland destruction and 2/3 of the replacement wetlands are outside the Lake Superior watershed.	WET01, WET03, WET19, WET20
<b>Sender Name (Submission ID)</b> Mason C Myers (58131)		
19964	Protective measures consists of products and equipment made by man which we are asked to believe will serve for hundreds of years. In face nothing man-made has lasted 500 years, most have crumbled in less than 200	PD01
19967	Review of the EIS shows that the supporting technology is based on incomplete mineral data and inaccurate water modeling data	NEPA14
19990	The Polymet Mine Proposal threatens water purity of northeastern Minnesota and paves the way for additional mine proposals waiting off stage.	CU04
<b>Sender Name (Submission ID)</b> Mathews Hollinshead (28646)		
10914	Launching sulfuric acid into northern MN aquifers and watersheds is self-evidently stupid and immoral on any number of grounds that are being well-documented by qualified parties.	WR195
14699	Minnesota's tourism industry and general health apparently count for nothing against a few unions who know the mining jobs probably won't even be union jobs, and shell mining companies that have nothing else to do with MN.	SO02
14700	There will be no positive jobs, union or otherwise, in the giant superfund site this will become. The only work will be monitoring and vainly trying to make things appear as if the damages can be cleaned up. All the rest of us schmucks will have to show is our escalating tax bills and the far-off memory of a time when you could actually use the water in northern MN.	SO03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Matt Anderson (43122)		
15872	It just seems that 20 years of employment is not worth basically permanent damage to an important part of this state.	SO01
15873	Any contamination of the surface or groundwater in northern Minnesota has the potential to spread and include areas far from the mining site.	WR111
15874	Glencore has a history of lack of concern for human rights, as well as environmental protection. A little searching quickly turns up a number of disturbing articles about Glencore projects in places like Columbia, Bolivia, Zambia, Ecuador, and the Democratic Republic of the Congo.	FIN02
<b>Sender Name (Submission ID)</b> Matt Goodman (14483)		
1741	I believe that the costs far outweigh the benefits. The aesthetic toll cannot be measured and the economic benefits are negligible.	LU04
1742	So what if 500 people have decent paying jobs for 20 years. When the jig is up, they'll find themselves jobless in a economically depressed wasteland.	SO01
<b>Sender Name (Submission ID)</b> Matt Jones (21)		
393	I do not want to see Minnesota turn into a state that permanently destroys its beautiful wilderness for short lived economic benefit.	SO01
<b>Sender Name (Submission ID)</b> Matt Lauseng (40236)		
14131	I can see [the mine] being a good thing for the people and businesses in the area. Some sacrifices will be made yes, but they are minimal when the size of the payoff for the area are taken into account.	SO10
14133	Please don't allow influence from groups outside the area or ones in areas that this will not affect to put a stop to a greatly needed expansion of mining on the iron range.	NEPA16
<b>Sender Name (Submission ID)</b> Matt Mlinar (38879)		
5386	I've worked at mining operations in Minnesota and copper-nickel-sulfide research and I believe mining this reserve IS in Minnesota's best interest.	SO10
<b>Sender Name (Submission ID)</b> Matt Schmitt (58147)		
19892	20 years of mining with 500 years of monitoring is an unrealistic thought.	PD01
19947	Never has there been a copper/nickel mine anywhere in the world that has not polluted water...The mine would be located 20 miles upstream from the largest fresh water lake in the world	PD26, SO01, SO02
20019	Threat to thousands of jobs in the recreational and tourist industry over the next 200 years,for a handful of 20 year mining jobs.	SO01
<b>Sender Name (Submission ID)</b> Matt Straw (3474)		
9636	Mining companies: NEVER hire as many people as they say they will, and the jobs are impermanent, creating a future unemployment problem.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Matt Straw (3474)		
9639	Mining companies: NEVER clean up after themselves, leaving a toxic, deadly mess for taxpayers to deal with for decades--sometimes centuries... Expecting Minnesota to keep those chemicals from poisoning an entire region for 500 years is nothing short of absurd.	FIN01, FIN10
9641	Mining companies: NEVER aid tourism in the states or local areas where they are allowed to mine.	SO02
9642	Mining companies: NEVER find less invasive or less toxic methods to mine, always opting for larger equipment, fewer employees, faster methods, and a much wider impact in terms of carbon footprints and environmental destruction--that's what they call "progress."	NEPA15
13416	[Mining companies] NEVER hire as many people as they say they will, and the jobs are impermanent, creating a future unemployment problem.	SO02
13418	[Mining companies] NEVER end up having a positive effect on any economies, local or otherwise, in the long run.	SO02
16032	I do nto believe the potential for 500 years of poisoned water, ruined tourism, destroyed habitat, and ravaged state and local economies is a good trade for any benefits from any mine.	SO01
16986	[Mining Companies] NEVER clean up after themselves, leaving a toxic, deadly mess for taxpayers to deal with for decades--sometimes centuries.	FIN01
<b>Sender Name (Submission ID)</b> matt tuccitto (47428)		
17587	Our state has a valuable resource located beneath the surface (copper, nickel, platinum, etc) and its our job to extract it as environmentally friendly and responsible as possible. Polymet mining will ensure that is done.	PD28
17588	Its time to make MN great again and attract tax paying families and corporations from other states similar to what North Dakota has accomplished in the last 10 years.	SO10
17589	issue Polymet a permit. I love the outdoors and have visited the BWCA 30+ times... this mine plan will NOT harm the water in northern MN.	WR190
<b>Sender Name (Submission ID)</b> Matt Tyler (18354)		
2536	If you look at Appendix C, it is about 250 or 200 pages of the tribe saying all of the things that are wrong with the EIS, based on science and citations with their own models. Now, if we are going to say that that [SDEIS] is adequate, and we have that much dissent, then that is purely illogical and ridiculous	NEPA12
2537	And I think one thing that doesn't get talked about a lot, you know, is the mesothelioma and the increased risk of heart attack and stroke, you know, that a lot of people have experienced. And that is not really reflected in here [SDEIS] very well.	HU01
2538	I will just point out, the way they analyzed the wetlands impact on this thing is kind of ridiculous. I am friends with a professional hydrologist and he has told me time and time again, if you want to look at a wetlands study, you have to do a hydrological study, do a pump test, you have to do a laser test. They didn't do that. Why?	WET08
3208	...one thing I'd want to focus on is that something that's not been talked about is that this SDEIS, if you actually work through it, didn't have any analysis of worker safety in there.	HU04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Matt Tyler (18354)	
1209	...I think we have to look at this critically and one of the reasons they might not have put worker safety in there is because their own data in the SDEIS, page 5 -- 439 -- to 4 -- 438 to 439, points out that about nine percent of the ore tailing and process water have those asbestos-like fibers in them, and you know, they didn't really look at what's that going to go to folks in the plant. They didn't really look at what the air treatment mechanisms are going to be.	HU04
14636	very rarely do you see an EIS that has its own chapter where the agencies say, "We disagree with this, we disagree with this, we disagree with this." If you look at Appendix C, it is about 250 or 200 pages of the tribe saying all of the things that are wrong with the EIS, based on science and citations with their own models. Now, if we are going to say that that is adequate, and we have that much dissent, then that is purely illogical and ridiculous.	NEPA12
14637	And I think one thing that doesn't get talked about a lot, you know, is the mesothelioma and the increased risk of heart attack and stroke, you know, that a lot of people have experienced. And that is not really reflected in here very well.	HU01
14638	No other EIS has this little mention in it to workers' safety.	HU04
14639	the way they analyzed the wetlands impact on this thing is kind of ridiculous. I am friends with a professional hydrologist and he has told me time and time again, if you want to look at a wetlands study, you have to do a hydrological study, do a pump test, you have to do a laser test. They didn't do that. Why? Because they were lazy. They wanted to rush to get this done, and now it is still incomplete.	WET08
18349	To protect taxpayers from bearing the cost of long term treatment, a portion of the financial assurance required by the State of Minnesota should be set aside to create a non-refundable trust fund dedicated solely to paying for the operations and maintenance of long term treatment.	FIN01, FIN08, FIN10
18350	Although the NorthMet SDEIS gives estimates of \$3.5-\$6 million annually for post-closure operations and maintenance (O&M) (SDEIS, pg. 3-138), the source of these estimates is not documented.	FIN05
18351	The annual long-term operating and maintenance post-closure cost estimates in the PolyMet SDEIS are significantly lower than the lowest estimates calculated from published estimates for similar reverse osmosis plants on the LTV property... Independent estimates of long-term annual O&M post-closure costs range from \$6.1 to \$10.6 million.	FIN05
18352	Stochastic simulation of volatile investment returns and inflation rates show that the minimum beginning balance for the Long Term Treatment Fund required to ensure water treatment for 500 years after closure is \$333 million, and quite possibly \$500 million or more.	FIN05, FIN08
18353	Lacking specific, detailed treatment water treatment plant plans specific to the NorthMet Project, there is still considerable uncertainty about annual long-term treatment costs.	FIN05
18355	The SDEIS also fails to include an estimate of a financial assurance funds for accidents, natural disasters, and other unforeseen events.	FIN05
18356	Not including additional contingency funds, the total financial assurance package should be at least \$383-\$700 million.	FIN05
18358	The NorthMet FEIS and permit applications should include financial assurance trust funds requirements for long-term treatment based on probabilistic analysis of investment return and inflation volatility similar to that presented here.	FIN05, FIN08
18359	Future probabilistic financial analyses should ideally use alpha-stable or other nonnormal distributions.	FIN05, FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Matt Tyler (18354)		
18360	Future probabilistic financial analyses should use longer investment return and inflation rate time series to improve the fit of statistical distributions.	FIN08
<b>Sender Name (Submission ID)</b> Matt Zimmerman (54361)		
18224	I think that PolyMet Mining has a great plan for the reduction of environmental side effects and the output of ore. They appear to be trying to limit cultural and environmental damage through engineering.	PD28
18225	This mining would greatly benefit our state. It would create numerous jobs and help boost our economy. It would offer a lot of potential for future copper mines and would be one of the most productive.	SO10
18226	This will have a minimal impact on cultural resources in the area. It might affect a segment of the Mesabi Widjiu. Other than that it wouldn't affect important cultural resources that are valuable to America.	CR07
18227	The land exchange offers seem fair. They appear to trade the same amount of land between both groups. The offers would add to the Superior Forest. They would also add to PolyMet's mines.	LAN11
<b>Sender Name (Submission ID)</b> Matthew Davidson (6011)		
1523	Trading a generations worth of jobs for 5 generations of clean up and monitoring seems foolish	SO01
<b>Sender Name (Submission ID)</b> Matthew Hennen (44007)		
7540	there is a severe lack of fisheries and aquatic organism related information and data collected in the document.	AQ01
7545	Information [is] in some cases outdated and unconfirmed (e.g., assessing aquatic vegetation using aerial photographs) and does little to address potential impacts on aquatic organisms.	AQ02
7547	Sensitive aquatic indicator species should be identified and monitored on much more frequent basis in order to make inferences about potential impacts.	AQ18
7550	Massive amounts of research including fish behavior, recruitment, growth, mortality, etc. needs to be done on waters potentially affected by this project.	AQ01
<b>Sender Name (Submission ID)</b> Matthew J Eckman (54524)		
18729	Have a balanced SCIENCE (i.e., geology, chemistry, hydrology, ENGINEERS) group travel to several active copper/nickel mining sites of PolyMet (or their "parent" company) to review for current or residual problems with sulfides/pollution.	PER24
18730	If PolyMet is a subsidiary and declares bankruptcy, then who pays cleanup?	FIN01
<b>Sender Name (Submission ID)</b> Matthew Kilibarda (44121)		
8100	I don't understand why we would take such a big risk polluting [the fresh water of Minnesota,] considering that [fresh water] is going to be even more valuable and hard to come by in the future.	WR195

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Matthew Kilibarda (44121)		
14899	I keep hearing how we should do this mining here because we will do it right. Even if that were the case, and I'm not confident it is, to do it right will cost more, meaning the copper/nickel will cost more leading to issues we have had with other mining industries.	SO01
14900	The long term effects of this type of mining are of major concern. Not only to the beauty of this land, but to the impact on game hunting and again water quality which will likely impact fishing, swimming and other water activities.	LU06
14901	With the amount of jobs this project is promising to create...it just does not make sense that for such few jobs we would take such a big risk with a much more important recreational industry and a fresh water system that will be a valuable resource in the near future.	SO01
<b>Sender Name (Submission ID)</b> Matthew McDonough (39334)		
12804	Minnesota greatest natural resource, and source of tourism revenue is the clean and pristine waters of the BWCA, and lake Superior. Any propose minning that slightly poses a danger to that is not worth doing.	SO02
<b>Sender Name (Submission ID)</b> Matthew Ott (19919)		
1507	The risks of the Polymet mine outweigh the benefits.	SO01
<b>Sender Name (Submission ID)</b> Matthew Straw (40712)		
14180	500 years ago we didn't even have steam engines. Columbus had just discovered America. And you want us to monitor extremely deadly water pollution for that period of time? Ridiculous.	PD03
14181	500 years of diligence and expense that will obviously fail raises the bar dramatically on what mining operations are expecting the populace to accept, and the costs they are forcing us to bear so they can become instantaneously wealthy.	FIN01
14182	These jobs won't last a generation. Can't be passed on to children. One generation of economic boon for 500 years of diligence, expense, deadly pollution, lost tourism, lost drinking water, and lost habitat?	SO01
<b>Sender Name (Submission ID)</b> Matthew Webster (44283)		
11966	I believe the positive short-term fiscal impact from a 20-year operation is significantly outweighed by what I understand to be the exponentially longer period of remediation and environmental impact.	SO01
11967	I am concerned that, even with the best intentions, PolyMet may not be available to continue monitoring and funding these remediations in 50 years or 100 years, and that therefore the cost of this would fall either on Minnesota taxpayers or on this fragile yet beautiful environment itself	FIN01
<b>Sender Name (Submission ID)</b> Maura Dilley (40668)		
6590	Minnesota's identity, heritage and future is water. Growing up in Norther MN, my family's drinking water came directly from a pump in the lake. The proposed PolyMet mine means that never again will members of my family have the same connection to Nature.	WR195
<b>Sender Name (Submission ID)</b> Maureen Johnson (43006)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
Sender Name (Submission ID)	Maureen Johnson (43006)	
11533	<p>A response to preventing release of such substances is to use a Hydrometallurgical Residue Facility (HRF), a large scale storage facility (SDEIS pp. 5-545, 569) to control disposed waste from the HP, waste sludge from Waste Water Treatment Facility at the Mine Site either directly or after processing through the HP, HP spill wastes that cannot be reintroduced to the HP, and other mine and plant wastes that require similar isolation from the environment....The SDEIS should develop alternatives to the current disposal system. One alternative to develop is a facility in which the waste is dried and permanently stabilized for disposal, either during operations or at closure. In this scenario, a waste-draining and treatment facility might route HP process waste water to a lower-elevation surficial impoundment for recycling to the HP. HRF contains hazardous waste and must be regulated appropriately Residue waste in the HRF has the potential to acidify and leach metals.</p>	ALT09
11535	<p>The SDEIS p. 5-545 declares “no significant adverse effects from the proposed use or generation of hazardous wastes by the NorthMet Project Proposed Action” but provides little data, evidence and commitment to demonstrate that the long term, perpetual containment of the wastes will not fail....I believe this facility is a hazardous waste facility based on:...- The gypsum sludge at PolyMet met the TCLP test, but the all wastes have not been tested for lethality and the process water is basic, with high chlorides...- By understanding that the purpose of the WWTF is to filter out metals and other constituents that prevent compliance with NPDES requirements, we can use our judgment that the waste sludge has potential to be hazardous....Unlike the hydrometallurgical wastes that were tested by TCLP for hazardous characteristic, the hydrometallurgical process waste water anticipated for full production was not [tested] during pilot tests (SRK, RS33/RS65 Hydrometallurgical Residue Characterization and Water Quality Model, February 21, 2007, Appendix B, p. 3...Although TCLP (EPA 1311) tests for the hazardous waste corrosivity characteristic on each of the solid form residues and their combination indicated these were not hazardous (SRK RS33/RS65, 2007, p. 23), the hydrometallurgical process waste water was not [TCLP] tested, and no indication of required testing of these wastes for the Minnesota lethality characteristic was found in the supporting documents...The SDEIS does not propose treating the residue in the HRF. However, “there is potential for acid generation to exceed neutralizing capacity in the long term, therefore lime or limestone will be blended with the Residue prior to disposal in the lined HRF.” (PolyMet, Residue Management Plan V. 2, December 14, 2012, p. 6). This will be a giant experiment using theoretical calculations for the volume of limestone to mix in with the residue, with some risk of failure....The HP process is said to “extract and isolate platinum group metals (PGM), precious metals, and base metals” (SDEIS, p. 3-107), but this list of products is inconsistent with the products from this process described elsewhere as gold/PGM product, copper concentrate product, and Nickel/Cobalt product (SDEIS Fig. 3.2-26, p. 3-109). The processes producing each of these sets of products require different chemicals, so it is important to be clear about which products will be produced, using which chemicals....The SDEIS must discuss the fate and risks of impacts of remnants of thickeners, flocculants, explosives, and such, some of which might cause impact different from their elemental makeup. Whether the waste is deposited in the HRF or in the FTB, at the stockpiles and the mine pits, all are subject to risks of release in the long term future because the wastes are not stable, and water and weather will cause wear on the covers.</p>	AQ27, HAZ02, PD17, PD18

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Maureen Johnson (43006)	
11537	No one in the List of Preparers shows RCRA solid and hazardous waste training...Listing the permits and their functions in the SDEIS is a way to provide the information. The list should include which permits cover which wastes, especially wastes presenting risks that meet or come close to the Minnesota definition of hazardous waste. If PolyMet will need a Hazardous Waste Generator's License, this should also be listed, even if the waste is exempt from other parts of chapter 7045. A large operation such as this often has its own industrial waste landfill. If PolyMet will have one or will continue to use SW-619, the permit should also be listed...The proposed location violates the location standards...The SDEIS avoids the requirement to provide information prepared for the NPDES and SDS and RCRA permitting that is required by Minn. Stat. 4410.2300 CONTENT OF EIS...The SDEIS completely ignores the narrative state standards, which are more difficult and complex than meeting the chemical numbers...The proposed location of the HRF does not comply with Minn. R. 7001 with the location requirements for hazardous waste at 7045.0538 LANDFILLS...The SDEIS text is insufficiently referenced, which meant we must search through the text pages of multiple reference documents listed at the end to find information about a particular subject in 2 full CDs (disks) of reference content amounting to 50,000 to 80,000 pages. Some references contained important references that were not included. This is an enormous amount of wasted time on the part of the reviewers and is a major reason we complained we need more time. There are many SDEIS statements that are not cited to references where references are available. This purposely makes it difficult to find references that apply to confirm the veracity of the statements. The index is usually useless. For example there is no entry for Waste Water Treatment Facility...PolyMet needs to make a statement of commitment in the SDEIS as to what it will do and what it might do to create a basis for the Record of Decision and for special appropriate conditions to be placed in its permits.	HAZ01, PER09, PER12
11546	the surface impoundment on closure will require maintenance that is not adequately planned or financed...- the lack of sufficient cover replacement plan and financing.- uncertainties in the production, and risk to environment when mismanaged, especially if not maintained and the cover not replaced- maintenance and replacement must be conducted into perpetuity, raising concern about the stability of the company over hundreds of years...The SDEIS must discuss the permanency of the Hydrometallurgical Residue Facility [HRF] and the perpetual nature of maintenance required, in contrast to the time over which the HRF is modeled...Financial Assurance should require annual contributions to a closure/maintenance and post-closure maintenance escrow funds during the 20 years of operation, with each year including provision for 1/20th of the total amount of maintenance costs for 500 years. Notwithstanding the current rules on financial insurance, this would be the only way to guarantee the proposer pays for these costs.The SDEIS must include a plan of sufficient detail for post-reclamation repair/ replacement/ other action in the case that the bottom liner composite system fails as indicated by quantity of leachate or HRF monitoring wells data.The SDEIS cost estimates must include post-reclamation periodic replacement of the cover liner and action costs in the case of bottom liner composite system failure.	FIN01, FIN05, FIN08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Maureen Johnson (43006)	
11547	I believe this facility is a hazardous waste facility based on:- EPA's determination that liquids in a surface impoundment represents a hazardous waste stream, - a surface impoundment is governed only under the hazardous waste rules in Minnesota,the surface impoundment on closure will require maintenance that is not adequately planned or financed,- the site risk to ground water is very high. The rosy projections for a mostly compliant discharge are hardly believable, mostly because the cost will be very high, but also because PolyMet has lowered the quality of the product it will produce by selling concentrates of mixed products rather than separating out each metal, likely reducing its projected income. (see the ground water section below.)- that the surface impoundment contains the unstable natrojarosite, which will dissolve and cause acidity in a domino effect; that the cover is not planned for replacement in a reasonable amount of time. - the lack of a monitoring plan including wells...The SDEIS underestimates the impacts of the project on ground water by orders of magnitude for some parameters by improperly assessing impact using criteria that are not all risk criteria.... Provide the documentation for [maintaining surface flows]. Maintaining existing aquatic ecology is not only providing water, it is providing the minerals, nutrients and conditions that the aquatic ecological organisms require....The SDEIS does not acknowledge that the lower geomembrane liner has the similar chances of structural flaws as either the upper geomembrane or the cover geomembrane. Leaks can happen in any of the liners, some, perhaps most, because of accidental flaws in installation. The enhanced clay liner beneath the lowest membrane will slow leakage but may not stop it, especially if the residue is ionic and/or acidifying and changing the form of some of the wastes to mobilize.	AQ24, HAZ02, PD17, WR001, WR060, WR064, WR107, WR108, WR126, WR127, WR138, WR142, WR185
11550	The [Hydrometallurgical Residue Facility] HRF may contain .7 to 1.5 tons of mercury....Another unknown is mercury, which has much lacking data, it was not a parameter analyzed on a standard basis, it was not included in modeling and it should have been. The affected downstream receiving waters are mercury impaired. Mercury is included in Table 5-2 Elemental Composition of Residues for each residue and the combination at .11 ppm (SRK, RS33/RS65), which, based on only this information, would be almost .7 ton mercury if the full 6,170,000 tons of residue are produced....The SDEIS p. proposes no action on mercury in discharges, asserting they will meet the standard of 1.3 ng/l Hg. The standards must not be exceeded therefore the effluent limit should be set at less than the standard of 1.3 ng/l Hg, a level that will ensure the standard will not be exceeded....7052.0220 requires that the NPDES permit contain WQBELs for GLI pollutants that exceed standards in fish tissue (below). This means if PolyMet intends to discharge to a water body with the mercury fish tissue level already exceeding the standard, each facility including PolyMet that discharges to the water body must assume it has reasonable potential to cause or contribute to excursion above a water quality standard or criterion....The SDEIS should include: HRF leakage in the water modeling including mercury; a discussion of mercury speciation versus changes in the HRF should acid conditions develop; [and] a discussion increased risk of mercury release to ground water should the aging liner(s) fail.	MERC01, MERC04, MERC13, MERC14
11555	3.2.2.3.4 Ore crushing and grinding buildings emission control systems are planned to meet or exceed the particulate emission standard required of new sources at taconite plants. That particulates are not taconite particulates and the grind is smaller than taconite likely makes this standard insufficient. The SDEIS should address these differences from taconite emissions....The SDEIS must acknowledge that this project will produce heavy metal particulates subject to OSHA & MSHA worker exposure standards, such as Ni, which has been identified as cancer-causing at specific concentrations and particulate size.NEPA requires that impacts to the human environment be evaluated. The impacts of the heavy metal nature of particulates should be described for human and environmental receptors both outside and inside the buildings, both when well managed and when mismanaged.	AIR10, HU01, HU04
12698	Section 5.2.13 of the SDEIS states, "If present, other hazardous or potentially hazardous materials or wastes will be characterized, managed, and disposed of or recycled per the Hazardous Materials Management Plan (to be completed), which will follow requirements of Minnesota Rules, Chapter 7045: Hazardous Waste. This implies that, if operators think that wastes might be hazardous then they will test. This is not sufficient.	HAZ01
12706	This is a proposed mine in a mostly wet place, much different from almost all other non-ferrous mines located in dry areas with little to no water to worry about contaminating....Location standards are listed at Facility standards 7045.0460: No facility may be established or constructed in a location where the topography, geology, hydrology, or soil is unsuitable for the protection of the ground water and the surface water.	PER12

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Maureen Johnson (43006)	
12711	PoyMet should develop an alternative to disposing of the hydrometallurgical waste on site; such as hauling the waste to an off-site industrial or hazardous waste disposal site. The discussion should include determinations of whether an industrial waste disposal site would accept the waste and whether a hazardous waste disposal site would accept the waste, and the appropriate comparisons of risk, cost, and other factors among all three alternatives.	ALT09
12715	The SDEIS has no mention of lime included in the residues as treatment. The volume of lime that would be needed would have to be sufficient to contact any acid water formed from jarosite decomposition at the site where the acid was formed...The total volume of the treatment lime or hydrated lime must be stated and assure the volume can be accommodated in the 6,400,000 cu yd capacity of the HRF.	PD18
12728	If the hydrometallurgical process waste water is determined to be hazardous, it cannot be exempted from compliance with 7045 due to recycling because the surface impoundment system is not totally enclosed.	HAZ02
12733	Other wastes proposed for disposal in the HRF are likely hazardous and need testing, including the reject concentrate hazardous wastes, and sludge from the WWTF.Each new waste proposed for disposal in the HRF must be tested for composition, determined whether hazardous waste or not, and evaluated for compatibility with the existing combination of wastes.	HAZ02
12738	With regard to surface impoundment and preventing dike failure, hazardous waste rules state, "In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit." (7045.0532 Subp. 3. E.) Actually, "minor amounts of leakage to groundwater" are expected (PolyMet, Geotechnical Data Package Vol. 2 - Hydrometallurgical Residue Facility V. 3, October 12, 2012, p. 8).	HAZ01
12744	PolyMet presents Minnesota with a dilemma on assuring long-term financial stability for long-term maintenance. Currently accepted financing tools can disappear when the company bankrupts	FIN01, FIN08
12747	The SDEIS underestimates the impacts of the project on ground water by orders of magnitude for some parameters by improperly assessing impact using criteria that are not all risk criteria	WR071, WR110, WR177
16503	Ten other copper-nickel-platinum group deposits will be mined eventually if this project proceeds to operations. The people of our state have a right to be informed about the cumulative effects of these mines before any decision is made for an individual mine....A separate cumulative EIS analysis on these eleven similar copper-nickel-platinum group deposits is necessary before a Record of Decision and permits are issued for PolyMet....This data is needed before we proceed further with PolyMet.	CU04, CU19
16583	Of the potential violations listed at 7045.0538 for hazardous waste landfills, the proposed HRF is located 1) where degraded wetlands are present and also over tailings on top of peat where wetlands once existed; 2) where the topography, geology, hydrology, or soil is unsuitable for the protection of the ground water and the surface water including proximity to lakes, streams, or ponds, bedrock; value as drinking water supply, ground water flow patterns related to recharge to aquifers for drinking water.	WR069
16587	identified faults, including a formerly inferred fault [run] through the HRF location .... All of these faults in the Plant site and nearby cannot be ignored and should be thoroughly analyzed for integrity, fractures, weakness and effects on the faults and other faults, permanent structures, and plant infrastructure should any size of movement occur. The uncertainty around these faults puts at risk the integrity of the hazardous waste disposal facility.	GT11, WR008, WR012, WR067
16591	The text should discuss the potential for weak occurrences [of earthquakes] and the effect of a small shift in the area of the HRF on the liners especially when they age and weaken, and cause leakage not controlled by the leakage collection system.	GT12

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Maureen Johnson (43006)	
16609	HRF location and management of wastes does not meet requirements of MN law, facility should be relocated	PER12
16617	The liquid process water will pond over the settled wastes in the surface impoundment and be reused in the HP. The surface impoundment is open to any wildlife, swans, ducks, other birds, rodents, or flying butterflies and insects. The characteristics of the waste water is likely to be a risk to these biota. Note some individual chemicals are common but in high concentrations: high salt concentrations will dehydrate; magnesium sulfate will have a laxative effect; hydrochloric acid and sulfuric acid will burn; we do not know what the combined impact this would be on wildlife. ...Appropriate tests would be the lethality hazardous waste characteristic and the Whole Effluent Toxicity.	WI04
16631	the SDEIS does not propose a well system to monitor ground water for HRF leakage to the ground water. Any leakage would be unlikely to be detected because there are no monitoring wells in a monitoring plan specific to the HRF. The SDEIS does not include a contingency plan and cost estimates for liner failure.	PD18
16636	Liner leakage must be evaluated for changes in acidity, pH, and quantification of leachate water quality characteristics including but not limited to metals, so that appropriate action can be taken if the content of the HRF is acidifying and enabling release of contaminants.Liner leakage is dismissed as negligible and not included in models, but in the post-reclamation period leakage is much more likely.	PD18
16640	...hazardous waste rules state, "it must not be presumed that the liner system will function without leakage during the active life of the unit." (7045.0532 Subp. 3. E.) The hazardous waste rules is the only location where governance of a surface impoundment is found. Disposal of waste under 7035 does not allow liquids. One might conclude that a surface impoundment containing waste including sludge from non-sewage waste water treatment is a hazardous waste facility in Minnesota, and this would be appropriate.	PER12
16643	The SDEIS should provide examples of liner provider warranties and installer warranties, and discuss what other mines do to provide for replacement of the HRF liners. This will provide an idea of what site specific life these liners have, and a basis for estimate of replacement costs. It will also provide a better basis on which to consider stabilization of the waste as an alternative, during operations, at closure, or when the lower liner system needs replacement.	PD18
16650	SDEIS p. 5-201 dismisses mercury in groundwater, but at a release rate of 5-7 ng/L mercury for about 500 grams of rock, exposure of mercury increases exponentially when the total amount of rock surface from mining is exposed. ...- The SDEIS must address not only the results but also the inadequacies of the tests that it says supports the dismissal of mercury in groundwater with an uncertainty analysis.	MERC04
16654	The ground water evaluation points provided at SDEIS Fig. 5.2.2-4 may be appropriate to model potential effects, but they are not appropriate as monitoring points to identify surficial ground water pollution. If the property boundary or a receiving surface water is used as a pollute-up-to-boundary, the ground water of property beyond or the receiving water will be affected. It will have been too late before it gets to other properties or a receiving surface water.	WR039
16655	Minn. R. 7060 does not permit the concept of allowing dilution of ground water contamination until it gets to a property boundary. ...additional groundwater monitoring points should also be located at points where early detection and cost-conservative control of contamination is still reasonably possible.	PER09
16656	Ground water monitoring points must be located at points at a sufficient distance before the property boundary or before the river so that the responsible mining company can mitigate pollution before it impairs other persons' uses of the ground water that begin at the property boundary or before it discharges to a surface water.	WR039

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Maureen Johnson (43006)		
16661	...instead of followthrough with Health-Based values identified in the cited Rules as appropriate working with risk to human receptors, the SDEIS continues to use only the available HRLs and MCLs. ...The SDEIS should use risk-based data and evaluation criteria. For example, the human receptor data for Mercury is .00053 ng/l since this water will eventually emerge as surface water that escapes through the containment system to methylmercury-impaired waters.	WR010
16667	When residential wells are reflecting contaminants that could be related to the tailing basin, it is logical that SDEIS must provide evidence ( tracer tests?) that there are no connections to other residential wells and ground water beyond the mine limit – before the underwater disposal option is approved and a full pit provides the head to push meromictic waters into fracture conduits horizontally or downward to the major drinking water aquifer	WR010, WR012, WR039, WR041, WR056, WR064, WR071, WR087, WR090, WR142, WR168
16676	I see no indication that this SDEIS estimate considers inflation, which if we reasonably assume based on past inflation 1970 to 2014 doubles the costs at least about every 30 to 50 years	FIN05, FIN08
16678	the SDEIS neglect to discuss risks in the long term for all activities at the project, such as but not limited to underwater disposal in which a long term probability is meromixus, the ponds liners at the Waste Water Treatment Facility that will also have leakage, underliners and covers for stockpiles that will need maintenance and replacement, the Floatation Tailings Basin and stockpile seepage containment systems...The SDEIS must discuss the NEPA-required risk considerations that may lead to violations of ground water and surface water criteria.	GT01
16679	I am not convinced that the SDEIS proposals are sufficient to protect groundwater and surface water against a pot pourri of mineral processing wastes, waste water treatment sludges, miscellaneous wastes, and more than a ton and a half of mercury in an area where both anthropogenically affected and pristine surficial groundwater and wetlands headwater to streams and lakes that are already mercury impaired.	WR109, WR130
<b>Sender Name (Submission ID)</b> Maureen Keogh (12417)		
77	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
78	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
1654	The SDEIS proposes no mitigation for the indirect wetland impacts.	WET01
<b>Sender Name (Submission ID)</b> Maureen Lahiff (13569)		
119	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
120	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
121	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Maureen Skelly (18258)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Maureen Skelly (18258)		
13704	I wanted to suggest that perhaps we come up with a plan where some of the 350 or 500 people that might apply for the jobs the mine is offering would consider creating some other jobs for themselves connected to the tourism industry; the fishing, the hunting, the canoeing, where people that go up there could commit to supporting them.	SO06
13705	We in Minnesota have a responsibility to protect the water, the land of 10,000 lakes, the source of the largest river in the North American continent and home to the largest freshwater lake in the world.	SO01
<b>Sender Name (Submission ID)</b> Maury Aaseng (18068)		
3184	... I don't know why we aren't opening a recycling plant that takes these millions of tons of precious metals in electronics and using them that way.	ALT09, ALT16
15408	I would like to hear people talk about solutions that take into account the economic need of the people in the region who stand to benefit from the mine while protecting against environmental damage and long term costs that many in the state object to.	SO06
15409	One idea that I suggest is to examine the viability of opening a precious metal recycling plant that would preserve the environment, provide needed metals, and provide jobs and industry. According to a recent publication by the Smithsonian Institute, there is an estimated 40 million tons of electronic waste generated annually that contain the metals we could use for these purposes. Consider what other solutions we could come up with if we work together instead of becoming polarized.	NEPA06
<b>Sender Name (Submission ID)</b> Max Jodeit (2718)		
11903	[revise project to include] new technology that would allow recovery within two years, when any mining stops	PD32
11904	[revise project so] sufficient money is deposited in an account controlled by the State of Minnesota DNR (for example) to ENSURE that the technology works and that recovery is essentially complete after two years, whereupon some of the deposit would be returned to the miners; half the original deposit if recovery is ACTUALLY complete, and an appropriate amount kept back temporarily to check the last steps. Otherwise, the whole amount would be used to complete the recovery work. Penalties large enough to make the mining company think their project through for the long term should be agreed to by the company.	FIN05, FIN07
17006	DOUBLY sufficient money is deposited in an account controlled by the State of Minnesota DNR (for example) to ENSURE that the technology works and that recovery is essentially complete after two years, whereupon some of the deposit would be returned to the miners; half the original deposit if recovery is ACTUALLY complete, and an appropriate amount kept back temporarily to check the last steps. Otherwise, the whole amount would be used to complete the recovery work.	FIN08
17007	Penalties large enough to make the mining company think their project through for the long term should be agreed to by the company.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Maxene Linehan (9692)		
15358	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR115
15359	the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Maxene Linehan (9692)		
15363	Minnesota's interconnected water table, lakes, rivers, streams and watersheds (including Lake Superior) are too precious to the future of Minnesota to allow feckless exploitation. Sulfide producing mines are better managed in dry regions.	SO01
15365	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
15366	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	PD03
<b>Sender Name (Submission ID)</b> Maxwell Helmberger (57259)		
17393	This project threatens to destroy wetlands, pollute our waters, and kill our wild rice stands.	WET24
17394	The loss of these ecological and cultural resources is not worth the metal from the ground, especially if the pollution remains here in the state long after the last speck of ore is carted away.	SO01
<b>Sender Name (Submission ID)</b> McLaughlins (6527)		
1086	The Iron Range needs an economic boost and Polymet will have a huge positive impact in our area of the state.	SO10
<b>Sender Name (Submission ID)</b> Megan McGuire (44862)		
8059	While the standard processes may call for detailed risk analysis during a later stage of permitting, that would provide inadequate opportunity for the public to review and comment on the risk analysis. I would implore the agencies to conduct a thorough, detailed, and complete risk analysis to be included in the EIS to allow the public to comment on the analysis.	NEPA08
8060	A risk analysis is needed for many areas of the EIS and should be added [i.e., for:] potential impacts to water quality, habitat, and human health. I suggest that the risk assessment should follow the principles used by the Corps of Engineers for risk analysis. The analysis should include all potential avenues for harm to public health, environmental resources, and workers...These risks should then be described based on the likelihood of each risk occurring, the consequences, and the response.	HU01
<b>Sender Name (Submission ID)</b> megan williamson (28957)		
13872	Please DO NOT endanger Lake Superior!!! How can protecting our largest body of fresh water not be a top priority?	WR111
<b>Sender Name (Submission ID)</b> Meghan Ihfe (54341)		
17447	[The PolyMet mine is] going to benefit us it is also going to give us some disadvantages. If we do this project, we will be getting rid of some waste that is found in our earth. I think that the plan that they have right now would work out perfectly fine. I think it will also help Minnesota by, getting rid of our wastes and also earning more money for the copper-sulfate.	SO10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mehgan Blair (11534)		
2484	Why are only local environmental impacts considered in the EIS, when the commodities (i.e. metals mined) are traded on a global market. For example, does this project, mined in an area with a functioning elective government and strong environmental and labor regulations, has the potential (through the use of hydrometallurgy) to offset global emissions from smelters by displacing in the marketplace metals delivered by mining/smelting elsewhere in the world? Would the development of hydrometallurgy, in general, drive technological improvements that could help curb global emissions from mines?	PD33
2484	Why are only local environmental impacts considered in the EIS, when the commodities (i.e. metals mined) are traded on a global market. For example, does this project, mined in an area with a functioning elective government and strong environmental and labor regulations, has the potential (through the use of hydrometallurgy) to offset global emissions from smelters by displacing in the marketplace metals delivered by mining/smelting elsewhere in the world? Would the development of hydrometallurgy, in general, drive technological improvements that could help curb global emissions from mines?	PD33
<b>Sender Name (Submission ID)</b> Mel Lahr (46052)		
10543	Levels of contamination, acidity and corrosion that will result from the waste which would go into the HRF (hydrometallurgical residue facility) are not revealed in this report. We know that the waste will be hazardous though and therefore the site should be regulated as a hazardous waste landfill. Storage and disposal of such waste requires a separate permit in Minnesota. (Minn. Stat. 116.06, subd. 11)	HAZ02
10546	Minnesota rules protect water quality and human health by requiring that wastes must be solidified and stabilized after closure so they won't leak but PolyMet is proposing to use various types of liners including Geomembrane (which is known to degrade over time) and leave the waste in a toxic pond. PolyMet must be required to specify all HRF wastes and plan to treat their wastes as hazardous.	HAZ02, WR067
10553	The EIS states, "adaptive management would be implemented, if necessary, to protect the environment for the long term." ... What if something happens in 40 years? Or 100 years? It is unlikely PolyMet still be around to practice this adaptive management? Other industries with similar risks, such as offshore drilling and nuclear industries, must include a Safety Emergency Management System (SEMS). PolyMet should also be required to layout safety precautions for possible scenarios instead of just saying we will use "adaptive management" when the time comes.	FIN01
<b>Sender Name (Submission ID)</b> Melanie Erickson (52294)		
10739	The risk to ruining this precious area and even more precious water out weighs the benefits by far.	SO01
16983	The damage to water [from the NorthMet Project] m[a]y be devastating and last for hundreds of years.	WR071, WR115
<b>Sender Name (Submission ID)</b> Melanie Lahr (18322)		
2363	Levels of contamination, acidity, that will result from the waste which would go into the HRF are not revealed in this report... the site should be regulated as a hazardous waste landfill.Storage and disposal of such waste requires a separate permit from Minnesota.	PD17
2367	Minnesota rules protect water quality and human health by requiring that waste must be solidified and stabilized after closure. So they won't be. But PolyMet is proposing to use various types of liners, including the geomembrane, which is known to degrade over time and leave the waste in a toxic pond.	PD02, PD15
2368	PolyMet must be required to specify all HRF waste and plan to treat their waste as hazardous.	HAZ02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Melanie Lahr (18322)		
2371	What is "adaptive management"? What if something happens in 40 or 100 years? It is unlikely PolyMet will still be around to practice this adaptive management...Other industries...must include a safety and emergency management system...PolyMet should also be required to layout safety precautions for possible scenarios instead of just saying, "We will use adaptive management when it happens."	PD22
<b>Sender Name (Submission ID)</b> Melanie Peterson-Nafziger (40559)		
14309	the exchange of protected wilderness lands in tracts 3, 4 and 5 increase the risk of pollution in the Boundary Waters Wilderness Area, the most pristine waters we have in Minnesota. Of course, the proposed PolyMet sites also endanger Lake Superior and the rivers that flow into it in that region of Minnesota.	WR111
14310	The trade off to create short-term jobs and tax revenue in Minnesota by permanently damaging our land; endangering our most precious wilderness areas; potentially endangering our human health and our resources due to acid mine drainage, sulfates pollution, and mercury and other heavy metals release; and exposing our region to unforeseen but somewhat predictable long-term impacts of the mine is not worth it.	SO01
<b>Sender Name (Submission ID)</b> Melinda Sueflow (43590)		
15688	It is wrong to assume that the PolyMet tailings site has no potential to transport pollution through fractures. Existing tailings seepage already exceeds groundwater standards. In addition, on the LTV site, adjacent to the tailings, the SDEIS has documented that Area of Concern #8 has a plume of pollution propagating through fractures. (SDEIS, p. 4-12).	WR168
15689	Another problem is the lack of analysis of tailings seepage to residential wells. The SDEIS reports that there are 27 residential wells downstream of the tailings basin, before the Embarrass River. Some of these drinking water wells already have high levels of toxic metals (SDEIS chapter 4, page 403-411).	WR041
15690	I am also concerned about sulfates being released from the mine site and impacting the already impaired wild rice waters and fish in the St. Louis River.	WR158
15691	PolyMet also doesn't tell us how much mercury pollution will be seeping out of the PolyMetoverburden, tailings into surficial waters flowpaths right next to the huge new tailings piles.	MERC20
15692	The SDEIS should be redone to reveal how much mercury will be released directly or indirectly from the mine site into surface waters, and to show how much mercury seeps out of mine pits, waste rock pile, and liners to surface water flowpaths starting at year one and to identify the first place that mine site surface groundwater reaches the surface.	MERC16, MERC20
15693	The PolyMet SDEIS should not be finalized or the project approved until a mercury TMDL study in the St. Louis proves that PolyMet's increased mercury loadings won't increase fish contamination.	MERC22
15694	the SDEIS should be redone to use the best scientific data available and model PolyMet's mercury bioaccumulation effects.	MERC02, MERC04
15695	The SDEIS doesn't disclose cancer risks to on-site workers, but it should. The SDEIS should analyze particles and fibers in the air inside the crushing plant, not just outside the property boundary. And it must explain cancer risks intelligibly, assess on-site worker risk and recalculate cancer risks with a 70-year, not a 30-year lifetime. The SDEIS currently says that 30 years is a "lifetime" for cancer exposures, although both EPA and MN use 70 years. With this tweak, the total cancer risk at the property line for the mine and the plant is just exactly at MN's cancer limit (SDEIS pps. 5-421, 5-424, 5-426). Too convenient.	HU05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Melissa Engel (42836)		
7336	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
7336	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	NEPA16, SO10
<b>Sender Name (Submission ID)</b> Melissa Harry (52262)		
10688	My primary concern with the PolyMet sulfide mining is the lack of 100% surety over the longterm environmental and water quality repercussions.	WR195
10692	Sure a few hundred jobs for a few decades would come from this mining, perhaps more if other projects are approved, but the bulk of the money won't go to northern Minnesota. It will go to companies like PolyMet.	SO06
12056	the cost of swapping land with the Superior Natural Forest should take into account the value of the minerals and other resources PolyMet expects to extract.	LAN04
<b>Sender Name (Submission ID)</b> Melissa Hodnik (18217)		
2180	This [PolyMet] means jobs for the many communities that are starved for work, done the right way, and an opportunity for the Iron Range to share the legacy that the Twin Cities offers so many of us today.	SO10
<b>Sender Name (Submission ID)</b> Melissa Jansen (38222)		
9441	I am concerned with the lack of a defined and dedicated funding source (one that is set up by the mining company, and not affected by future financial hardships the company may experience) for the treatment of sulfate- and other pollutant-laden wastewater / runoff from the mining operation.	FIN01, FIN08
9444	The natural forests and wetlands that will be destroyed are not replaceable. Nonnative and potentially invasive plants are already turning up at many of the drill core test sites that are increasingly scattered through the forests of this part of the state.	WET24
13682	Leaving [the decision about financial assurance] for the permitting process seems like a young couple deciding to have children but waiting until a few months after their child is born to figure out how/if they can financially afford to raise a family.	PER03
13686	I understand that if the decision is made to go forward with this mining project that natural habitats will have to be destroyed. I could better accept this fact if their true value was represented in the cost side of the mining equation.	SO01
13687	I am concerned that we too easily buy into assurances from the mining industry that things like this can be done in an environmentally friendly manner. There has never been a mine that has not polluted, nor a oil field that has not polluted despite the same sort of environmental assurances.	PD01, PD25
13688	Leaving the minerals in the ground now is not a defacto moratorium on this type of mining; it may actually be the best way to keep our future options open, both environmentally, and economically.	NEPA03
<b>Sender Name (Submission ID)</b> Melissa Weisser (57274)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Melissa Weisser (57274)		
17422	The decision to mine – pollute – this region or any other, belong to the PEOPLE who live and work in the region.	SO02
<b>Sender Name (Submission ID)</b> Melody Exsted (36793)		
14876	Our concerns are about the wild life and water quality of the river and ground water if and when something goes wrong our land will be useless and not worth anything.	WI01, WR115
<b>Sender Name (Submission ID)</b> mercy myers (14526)		
158	I believe that the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
159	sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream.	AQ05
160	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
6774	WE DON'T NEED PROFITS FROM POLLUTERS LIKE [Polymet]!!	SO02
<b>Sender Name (Submission ID)</b> Meredith Kolar (30448)		
13991	the Boundary Waters Canoe Area Wilderness... is one of the few true wilderness areas of its type left. Its natural resources are crucial to the balance of the entire region, a natural balance which affects us humans, too! This precious wilderness area especially means so much to those of us who have spent time in it and observed its natural riches.I would be devastated to see any of this area be poisoned and destroyed by corporate interests	WILD02
<b>Sender Name (Submission ID)</b> Meredith Lorig (44882)		
10965	The proposed waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children. All of these are a concern especially the toxic metals and the effect bioaccumulation could have in people.	HU03
10972	I ask that you investigate further the PolyMet SDEIS and look closely at permits for the waste water discharge. I ask that written into the permit is that water quality is held to Minnesota standards. That if the water quality dose not meet standards that the mining has to stop until the water quality meets state standards.	PER06
<b>Sender Name (Submission ID)</b> Meredith Sommers (16492)		
1537	Tourism, which is a sustainable industry, would be drastically impacted	SO02
1538	Glencore has a record of environmental disasters, plus irresponsible safety standards. PolyMet has no track record of operating mines like the ones proposed in Minnesota.	PD23

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Meredith Sommers (16492)		
2029	And I have a suggestion to address the need for employment in the Arrowhead region. Instead of mining for copper, nickel and other metals, the state of Minnesota could jump-start a facility for reclaiming and recycling metals from existing electronic devices, rather than sending them to China and Winnipeg.	NEPA06
7321	Glencore has a record of environmental disasters, plus irresponsible safety standards. Poly Met has no track record of operating mines like the ones proposed in Minnesota.	PER02
18259	In the 1960s, I was involved in a study of Taconite mining in the Arrowhead region of Minnesota. The resulting report believed that this mining could be done without extensive harm to the land and water. We believed that the company, Minntac, and the DNR would oversee water quality standards. We believed that hundreds of people would be employed for decades and their quality of life would improve. We were wrong!	PD27
18260	Instead of mining for copper, nickel and other metals, the state of Ylinnesota could jump-start a facility for reclaiming and recycling metals from existing electronic devices, rather than sending them to China and Winnipeg.	NEPA06
18262	The Arrowhead is a treasure for millions of folks who live and travel there. The pristine nature would be destroyed by the noise, the truck traffic, the dynamite, polluted waters and disrupted land. Tourism, which is a sustainable industry, would be drastically impacted.	WILD02
<b>Sender Name (Submission ID)</b> Merle G and Mary C Wovcha (54657)		
17950	shouldn't the proposal incorporate the safest possible method of extracting these minerals, e.g., underground mining rather than surface, so as to lessen contaminating runoff?	ALT01
17951	in keeping with current State of Minnesota requirements (DNR Rule 6132.3200), shouldn't runoff remediation be completed upon cessation of mining, rather than the decades and perhaps even centuries of treatment anticipated by PolyMet to be needed?	PD02
17952	even if continuing remediation after mine closure were deemed acceptable, how can it ever be possible to accurately determine the level of funding needed to be set aside for such an indeterminate effort?	FIN05
17953	What can possibly be the downside of postponing extraction of these minerals until it can be done safely? The minerals aren't going anywhere and will surely be exploited when technology to safely do so exists. Until then, we have a moral obligation to proceed cautiously so as not to leave an environmentally-degraded Northeastern Minnesota behind for our future generations.	NEPA03
<b>Sender Name (Submission ID)</b> Merv & Suzanne- Joy Curran (39298)		
7265	Northern Minnesota is NOT the area in which to provide mining rights to an outside corporation that cannot possibly provide provide adequate stewardship for the water and environment in this area.	WET24
7268	We do think jobs are important and we will support jobs in Northern Minnesota that are sustainable to all life in that area. We urge Minnesota to take leadership in promoting sustainable industry. This should not include copper-nickel mining in Northern Minnesota.	SO02
<b>Sender Name (Submission ID)</b> Mettameyer (44533)		
10077	I am opposed to Polymet's plan for pollution management. The very idea that [Polymet] can be responsible and held accountable for centuries into the future is crazy. Minnesotan [taxpayers] will bear the practical and ongoing financial costs of this venture	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> mia schillace nelson (43958)		
6897	Saying that this will be the first copper sulfide mine that won't contaminate the watershed and pollute the air is unacceptable.	AIR11, WR023
6898	the fact that there is currently a global surplus of copper and nickel right now tells me that the risk isn't worth the reward. ... I know people on the range need jobs but this will not change the economy on the range based on the number of jobs it would create. This is also not a typical range project so it is very likely that many of the jobs created wouldn't be filled by locals.	NEPA06, SO01
6953	[PolyMet] will not be able to guarantee 200-500 years of financing for monitoring and treating the water at both the plant and mine sites.	FIN01
7023	[The PolyMet mining project] would destroy thousands of acres of habitat used by threatened moose and lynx	WI02
7026	PolyMet's mine plan lacks analysis of human health impacts from mercury and asbestos-like fibers	HU01
7028	PolyMet's studies contain inaccurate water data that need to be corrected	WR003, WR052, WR086, WR091, WR189
15653	I have yet to see an economic impact statement that wasn't created by the company itself in a best case scenario sensibility.	NEPA15
<b>Sender Name (Submission ID)</b> Micah Elder (30814)		
13997	At some point, we as a people (Americans) have to stop thinking about the short term and start thinking long term, i.e., what type of future environment are we leaving for our children and their children. Profit has got to take a back seat some time, and those who argue only for profit are (of course) arguing for their own profit and no one else's.	SO01
<b>Sender Name (Submission ID)</b> Michael (46936)		
10866	I am for this project. The state has mined extensively in this area for a hundred years. We have learned lots about mitigation and it seems, in this case there is a good plan for control of pollution. The country needs these metals.	NEPA05
<b>Sender Name (Submission ID)</b> Michael Ander (28920)		
10954	The hydrology of this region is a complex and interconnected system of surface and groundwater that cannot help but be impacted by the proposed mine.	WR107, WR108, WR111
<b>Sender Name (Submission ID)</b> Michael Anderson (5971)		
10485	In addition, the hydrology of the watershed in the Minnesota Iron Range is remarkably vulnerable to the same kind of perpetual pollution described in the Pebble Mine EPA report [which rejected the proposal to mine the area].	WR023
<b>Sender Name (Submission ID)</b> Michael Asuma (42516)		
15445	Science has proven a safe way to mine these precious metals. This process will be implemented in this new mine. PPE has the protection necessary to keep workers safe. This is not 1950 open pit mining. PolyMet wants to follow all laws and regulations. They know that the possible profits and probable profits are well worth not cutting corners in environmental and worker safety.	PD28, SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michael Barrett (48153)		
17511	Is it possible to capture 100 percent of the water on sire so there would be no water pollution? What about seepage underground?	WR118
17512	Is the Polymet proposal the sole project or the tip of the iceberg of several such problems in the greenstone geologic formation under consideration by mining companies and the government? ...Are there other mineral mining projects under consideration north of Babbitt that would result in polluted water flowing north to the Boundary Waters Canoe Area and Canada?	CU04
17513	History shows that mining in the western states have left a trail of desolation with operating firms gouging the earth, then declaring bankruptcy and leaving the cleanup bill to taxpayers.	FIN01
<b>Sender Name (Submission ID)</b> Michael Beauchaine (11526)		
2477	I hunt and fish. This project is not going to just put the waste in Lake Superior. We need these jobs so this area can grow and prosper for years to come.	SO10
2477	I hunt and fish. This project is not going to just put the waste in Lake Superior. We need these jobs so this area can grow and prosper for years to come.	SO10
2478	Will there be concern for pollution? Yes. But there are check and rules and restrictions to help eliminate these.	PER34
2478	Will there be concern for pollution? Yes. But there are check and rules and restrictions to help eliminate these.	PER34
17105	We need these jobs so this area can grow and prosper for years to come. The jobs and economy are more important now.	SO10
17105	We need these jobs so this area can grow and prosper for years to come. The jobs and economy are more important now.	SO10
<b>Sender Name (Submission ID)</b> Michael D. Anderson (37676)		
9017	Would 60 more days for review have disrupted your timeline?	NEPA07
<b>Sender Name (Submission ID)</b> Michael D. McNally (40448)		
10509	I am concerned with the questionable assumptions about base-flows in the Partridge River that were recently reported in the Star Tribune but which according to SDEIS 8.3 have been of concern to Anishinaabe stakeholders for some time. ...a more cautious set of assumptions would model a very different set of potential deleterious impacts on downstream water quality, and natural resources like wild rice, and on wild rice as a cultural resource.	WR003
10517	In addition to freighted decisions at the assumptions level producing the anticipated effects of the proposed alternative, I join the tribal entities in their concern that the Cumulative Effects Analysis Area/CEAA has been too narrowly drawn, and in the doing excludes the St. Louis River.	CU01
10521	The value of the natural and cultural resources in this broader downstream watershed [St. Louis River] is too high to exclude from the deeper level of analysis, and it is clear to me from other research on NEPA and NHPA Sec. 106 analyses, that such choices in the EIS process, quite apart from the effects analysis itself, set parameters conducive to the proposed alternative and underestimate the reach of the potentially harm.	CR01, CR02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Michael D. McNally (40448)	
10525	In my view Northmet propoonents have underestimated the likely costs of securing the state-mandated water quality standards on the waters involving wild rice....	FIN11
10533	The 1854 Treaty of LaPointe guarantees usufruct rights to the Minnesota tribes in ceded territories, not only on public lands but on all lands in the ceded territories.	PER08
10536	[The proposed NorthMet mine site] lies entirely within this ceded territory, and while clearly there has been evident consultation with the tribes, it is also clear that their concerns are plainly sequestered and “managed” in the “MDO” section of the SDEIS Chapter 8 in a manner not consistent with federal obligations to the tribes.	CR01
10538	For example, as is recorded in the letter at Appendix C, p 89 ff of the SDEIS, the Fond du Lac, Grand Portage Tribes, the GLIFWC, and the 1854 Treaty Authority were diligent in their participation in the but were ultimately rebuffed in their concern that the Cumulative Effects Analysis did not extend as it reasonably might to the St. Louis River watershed	CR03, CR06
10539	Despite the tribes’ diligent consultation and considerable expenditure toward that consultation of resources for study, the co-lead agencies did not follow the best practices – indeed did not even use – the EPA’s 2011 best practices tool, Applying Cumulative Impact Analysis Tools to Tribes and Tribal Lands, in the work.	CU03
10550	In my research, I have seen evidence aplenty...to reduce tribal consultation to a perfunctory exchange of ideas, and to understate or under-examine the effects on cultural resources, or natural resources that are also cultural resources.	CR01, CR05, CR06
10555	The scoping for the EIS review did not identifyany cumulative impact issues on the identified cultural resources, but the tribes were not invited to participate in that scoping process.	CR03, CR06
10558	I believe that a proper orientation...cannot reduce to MDOs such concerns of the tribes, the 1854 Treaty Authority, and the GLIFWC on the scope and reach of cumulative effects impact, cultural resource impact, especially when there is science provided by the tribes and tribal agencies that specifically contends with the assumptions and models retained by the SDEIS.	CR01, CR03, CR05, CR06
14587	[I am concerned] that the SDEIS, in relegating the well reasoned, well-substantiated concerns of the Fond du Lac and Grand Portage tribes, the GLIFWC, and the 1854 Treaty Authority to “Major Differences of Opinion” and mere Appendix C without changing the geographic or conceptual parameters of the effect analysis itself is not only unwise; it is not in keeping with the federal obligation to the tribes.	NEPA12
14594	as a taxpayer, I do not want to be underwriting the cleanup of contaminated waters over time of choices that were ultimately injudicious because based on assumptions tending toward best case, rather than worse case, scenarios.	FIN10
14595	I am concerned with numerous turns of phrase in the SDEIS and broader analytical frames guiding it that dramatically understate the significance of tribal claims involved. To be sure the SDEIS dutifully identifies what it references (and in my view dismissively so) as MDOs, major differences of opinion. In places, the SDEIS language presume incorrect understandings of treaty law, including the potential reach of Anishinaabe claims to wild rice and other affected species in the land in question.	CR01
<b>Sender Name (Submission ID)</b>	Michael Dahl (18372)	
2566	The Sturgeon have already left this area once due to contamination and over fishing by non-native people. The moose are also becoming more and more rare. We do not want to see history repeat itself. The risk is unmeasurable.	WI01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael Dahl (18372)		
12567	The potential profits of mining to be made by few and enjoyed by few will never outweigh the proven risks to unmeasurable amounts of people, water, plants, and animals	SO01
<b>Sender Name (Submission ID)</b> Michael E Kaszynski (10238)		
381	Mining operations in general never clean up the mess that they leave in their wake. It is not economically feasible to do so.	FIN01
382	The iron range itself is an unsightly mess and we don't need another environmental catastrophe for hundreds of years in the future for the sake of a few jobs.	SO01
<b>Sender Name (Submission ID)</b> Michael Fisch (17715)		
13212	Are a few years of jobs and profits worth hundreds of years of pollution that translates into generations of children who will never know what its like to have a big trout or walleye on their fishing line and who will never know what its like to taste one of those fish or to drink directly from the lakes of the BWCA? Is it worth it?	SO01
<b>Sender Name (Submission ID)</b> michael fritsche (46952)		
10678	We all can look at what happens to mines eventually, they contaminate the area around it.	PD26
<b>Sender Name (Submission ID)</b> Michael Gallagher (5947)		
1949	A mining operation that would require centuries of water clean up should be enough of a deterrent by itself without even mentioning the open pit mine scar that would be left behind for millennia.	PD01, WR115
1950	What happens when PolyMet goes bankrupt and leaves behind a unfathomable mess which can NEVER be cleaned-up?	FIN01
1996	It is unbelievable to us that anyone would want to risk our precious north woods, including the BWCA, and the greatest lake in the world, Lake Superior, to the incredible dangers this mining operation would present.	WR111
<b>Sender Name (Submission ID)</b> Michael Garbisch (54143)		
16039	20 years of jobs for 200 years of on-going monitoring and remediation? This is crazy.	SO01
<b>Sender Name (Submission ID)</b> Michael Gorman (29636)		
10981	This scheme endangers natural resources and public health in northern Minnesota and the Lake Superior region.	HU03
10982	The risks it poses to water quality, habitat, and wildlife (including populations of lynx and Moose as well as spawning grounds for several species of fish) are simply too great.	WI13
10983	Sulfide mining...poses a grave threat to Lake Superior and the Boundary Water Canoe Area as well as the wetlands, rivers, lakes and streams surrounding (and feeding into) these natural wonders.	WR111

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michael Hamilton (42531)		
6775	I would like to see company and oversight agencies spot check homeowner private wells occasionally to ensure no toxins have entered the waterway. My advice would be you sample prior to establish a base to work off. I would even volunteer my well, if it was deemed viable to the primary area of concern.	MERC02, MERC10, WR039
<b>Sender Name (Submission ID)</b> Michael Hentley (3237)		
20085	We as Minnesotans oppose the mining of sulfide for foreign profit.	FIN04
20086	This mining process will scar the earth and salinate our freshwater system...it will also destroy its value as drinking water.	WR041
20087	[the Project will] affect the recreational value of the Boundary Waters and the Superior Basin	WILD02
20088	The economical value of the mining is only temporary, while the environmental affects well be permanent.	SO01
<b>Sender Name (Submission ID)</b> Michael Hostetler (4642)		
1869	this project will create much needed jobs in the region, provide tax revenues for the state, bring investment dollars into the state, and it will provide opportunities for educated young people to find fulfilling, challenging employment in MN	SO10
1870	So based on the documentation in the SDEIS and the commitments made by PolyMet [such as employing reverse osmosis technology and advanced emission-control devices on mining equipment], I am confident that impacts to the air, water or land will be minimal	AIR14
<b>Sender Name (Submission ID)</b> Michael Hughes (43502)		
7958	The EIR statistical model used to determine its environmental impact admittedly (per its staff drafters) does not take into account the less-frequent but certainly occurring devastating scenarios. It is a sham. All of the draft EIR's models only contemplate the most likely environmental impacts and not the less frequently occurring events (but it should include the more remote events which will occur in the longer time periods during which the project's risks will still be present).	PD22, PD29
15537	Please do not trade short-term gains for long-term costs. Do not exchange public land for damaged quality of life of life in the state's future.	SO01
<b>Sender Name (Submission ID)</b> Michael J Husnik (3064)		
615	...these kinds of new protections for water and air will be more than sufficient to protect the lands under proposed mining companies sites.	PD28
<b>Sender Name (Submission ID)</b> Michael J Kieffer (54802)		
18155	It the time is right, and the technology can deliver all promises, I believe this "Project" could transform & rejuvenate a large portion of our state and extend this prosperity far beyond our state's boundaries.	SO10
<b>Sender Name (Submission ID)</b> Michael Jordan (7408)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael Jordan (7408)		
760	my question is this : can the DNR and the state of Minnesota state unequivocally that our lakes, rivers and wildlife will not be harmed by this short sighted business proposition? The answer is clearly no.	WR115
764	By contrast, with sulfide mining the chemical processes are not inert, they are very chemically reactive and very harmful to our watershed.	WR195
766	The benefit to risk ratio of this proposal, minimal jobs and deleterious environmental impact, does not justify approval of this mining process in Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Michael Kahn (12453)		
81	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
82	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
83	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
1664	More than 900 acres of wetlands will be directly destroyed by the mine, with an additional ten square miles of wetlands projected to be indirectly impacted by toxic dust and dewatering. The SDEIS proposes no mitigation for the indirect wetland impacts.	WET01
<b>Sender Name (Submission ID)</b> Michael Killian (39015)		
4944	Please reject the PolyMet NorthMet SDEIS as inadequate and reject the PolyMet open-pit sulfide mine and wastes proposal due to its unacceptable risks to human health	HU03
<b>Sender Name (Submission ID)</b> Michael Kinzer (5988)		
1965	We hike, fish, ski, and watch nature [at our cabin]. I would not feel safe doing this if the Polymet proposal is approved in any form.	LU06
1966	How many hundreds or thousands of lakes and streams are you willing to destroy in order to create a few hundred jobs for a decade or two? In 50 years, when Polymet and all the others are long gone, either bankrupt, merged, swallowed up, or just mining elsewhere, and we are left with the sinking leaching pools of filthy nasty chemicals, who will remember the small bump in economic activity?	FIN01
<b>Sender Name (Submission ID)</b> Michael Kohout (43077)		
15335	Given the extremely long maintenance period to protect the area from runoff, as well as the lack of any positive track record by this company in this type of operation the risk seems to high and the reward of only 300 long-term jobs seems too low this operation should be denied or delayed.	SO01
15336	Until the long term effects of their techniques and technologies can be determined (hopefully elsewhere), any report that attempts to define it is based only on conjecture and should not be considered sufficient enough to be used as the basis of this activity.	PD32
<b>Sender Name (Submission ID)</b> Michael Koppey (18344)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael Koppey (18344)		
2524	There have been no studies on the plant sites' subterranean water migration and whether mining elements and contaminants would be carried through these frackings (phonetic) throughout our fresh water aquifers and our systems.	WR008, WR061, WR099
2525	It is hard to imagine that adding deadly chemicals, like lead and mercury, into the St. Louis watershed will have no effect on our wildlife and our people. We already have a high level of mercury in the St. Louis River. Should we be adding more contaminants without a proper study?	WR109, WR158
2526	EIS 24, paragraph three, it states that this facility will be capped and double-mined for 500 years for toxicity. This is longer than the State of Minnesota has existed.No known studies have shown that a manmade structure can stand for this duration of time, or especially 500 years, especially when we (inaudible) and biodegrade.	PD01
2527	EIS 24, paragraph three, also states that, "Adaptive measures will be implemented, if necessary, to protect the environment for the long term."This statement acknowledges that the system may fail as designed and is an uncontrolled experiment. That means that we, the taxpayers, will be responsible for the costs of any failure and that our fresh water and all that depend on it will be threatened.	FIN05, FIN10
<b>Sender Name (Submission ID)</b> Michael Koppy (11581)		
2237	According to the SDEIS, the proposed mine depth is approximately 700 ft. There has been no study of the plant sites sub-terrain water migration and whether mining effluents and contaminates would be carried through these fractures to other fresh water aquifers or systems.	WR010
2237	According to the SDEIS, the proposed mine depth is approximately 700 ft. There has been no study of the plant sites sub-terrain water migration and whether mining effluents and contaminates would be carried through these fractures to other fresh water aquifers or systems.	WR010
2238	EIS-36, paragraph 2 states stormwater run-off will include lead above the acceptable levels. Also in EIS-36, paragraph 5 states that the project would increase the mercury content in the Embarrass River. Finally, EIS-39 paragraph 4 states that species would not be affected by all this infiltration. It is hard to imagine that adding deadly chemicals like lead and mercury in the St. Louis watershed will have no effect on our wildlife and people.	WI04
2238	EIS-36, paragraph 2 states stormwater run-off will include lead above the acceptable levels. Also in EIS-36, paragraph 5 states that the project would increase the mercury content in the Embarrass River. Finally, EIS-39 paragraph 4 states that species would not be affected by all this infiltration. It is hard to imagine that adding deadly chemicals like lead and mercury in the St. Louis watershed will have no effect on our wildlife and people.	WI04
2239	EIS-24 paragraph 3 states that the Residue Facility will be capped and double-lined for the 500 years of toxicity.... No known studies have shown that a man made structure can withstand for the duration of time or at best 500 years especially when it's made of concrete or a geo-membrane, which will crack and biodegrade	PD17
2239	EIS-24 paragraph 3 states that the Residue Facility will be capped and double-lined for the 500 years of toxicity.... No known studies have shown that a man made structure can withstand for the duration of time or at best 500 years especially when it's made of concrete or a geo-membrane, which will crack and biodegrade	PD17
2240	EIS-24 paragraph 3 also states that "adaptive management would be implemented, if necessary, to protect the environment for the long term". This statement acknowledges that the system may fail as designed and is an uncontrolled experiment. That means that we, the taxpayers, will be responsible for the cost of any failure and that our fresh water and all that depend on it will be threatened.	FIN05, FIN10, FIN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Michael Koppy (11581)	
2240	EIS-24 paragraph 3 also states that "adaptive management would be implemented, if necessary, to protect the environment for the long term". This statement acknowledges that the system may fail as designed and is an uncontrolled experiment. That means that we, the taxpayers, will be responsible for the cost of any failure and that our fresh water and all that depend on it will be threatened.	FIN05, FIN08, FIN10
14208	Recently, PolyMet's Vice President Brad Moore, at a House committee hearing was questioned whether PolyMet had adequate financial assets to cover the long range environmental problems that would or could occur when the mine closes down. Moore was asked: "What is the true value of PolyMet's assets?" Moore replied that he didn't know. Also, the annual report shows that PolyMet has less than \$10 million in cash. This would not be even a fraction of what is needed according to the company's own report.	FIN01
14208	Recently, PolyMet's Vice President Brad Moore, at a House committee hearing was questioned whether PolyMet had adequate financial assets to cover the long range environmental problems that would or could occur when the mine closes down. Moore was asked: "What is the true value of PolyMet's assets?" Moore replied that he didn't know. Also, the annual report shows that PolyMet has less than \$10 million in cash. This would not be even a fraction of what is needed according to the company's own report.	FIN01
14209	Even PolyMet's own figures show they will need \$200 million for the closing and \$6 million for every year thereafter. How do you figure the cost for Perpetuity? This would leave us, the tax payers of Minnesota holding the bill. The PolyMet financials are inadequate. Please reject the PolyMet mine project.	WET03, WET15
14209	Even PolyMet's own figures show they will need \$200 million for the closing and \$6 million for every year thereafter. How do you figure the cost for Perpetuity? This would leave us, the tax payers of Minnesota holding the bill. The PolyMet financials are inadequate. Please reject the PolyMet mine project.	FIN01, FIN05, FIN10
14373	My understanding is that 99% of the rock mined will be waste and will go back into the ground as powder. This waste rock bears sulfides which will produce sulfuric acid when exposed to air and water.	PD15
14374	Other pollution will also rise such as mercury, lead, arsenic, and others. We live in Minnesota, the land of 10,000 lakes (more like 13,000) and next to the biggest fresh water lake in the world, Lake Superior. We also have the water rich environment of the BWCA. I do not want to take a chance of losing these unbelievable resources.	WR111
14375	This waste rock will have to be monitored 24/7 for 500 years. Who will pay for this? How will a cost be set when even our State Auditor, Rebecca Otto, cannot come up with a cost?	FIN01
14376	I realize that the lure of jobs is pushing this mining project. But this project will last 20 years at best. Do we want to risk one of the state's top nature resources (water) and the tourism that goes with it?	SO01
14377	Glencore has an agreement with Xstrata which states that the minerals out of PolyMet will go to China for the next five years. That means any value added to the minerals will occur not here, but in China. Glencore is also a 200 billion dollar company. That makes its revenues much larger than the state of Minnesota.	SO06
14378	What happens when the state has environmental problems? How will the state of Minnesota stand up to the goliath lawyers of Glencore in court? This will cost the tax payer more than we can ever hope to get out of this project.	FIN10
14568	99% of the rock mines will be waste. Other waste sites of copper-nickel operations have had large pollution problems. This waste rock bears sulfides, which will produce sulfuric acid when exposed to air and water. PolyMet states that their new technology will prevent pollution. This new technology has not been proven on an industrial scale.	AIR11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michael Koppy (11581)		
14569	This waste rock will have to be monitored for 500 years. Who will pay for this? How will an accurate cost be determined when even our State Auditor, Rebecca Otto, cannot figure the cost?	FIN01, FIN05, FIN11
14570	I realize that the lure of jobs is pushing this mining project. But this project will last 20 years at best. Do we want to risk one of the state's top nature resources (water) and the tourism that goes with it? There are four times as many jobs in tourism as in mining. We take for granted the abundance of our fresh water. According to the World Health Organization over one-fifth of the 1.6 billion people face economic water shortages. Water scarcity has been growing at almost twice the rate of the world's population. With the existing climate change scenario, almost half of the world's population will be living in water stressed areas by 2030 according to the World Health Organization. In another 20 years water may be as valuable as oil.	SO01
14571	Glencore is also a 200 billion dollar company. That makes its revenues much larger than Minnesota's. What happens when the state has environmental problems? How will the state of Minnesota stand up to the goliath lawyers of Glencore in court? This will cost the tax payer more than we can ever hope to get out of this project.	FIN01, FIN10
14572	PolyMet is a Shell Corporation of Glencore, a Swiss company with an abysmal environmental record. Xstrata, a Chinese company, in is partnership with Glencore. Glencore has an agreement with Xstrata which states that the mineral out of PolyMet will go to China for the next five years.	SO06
18002	PolyMet will not even consider underground mining which could avoid much of the environmental damage that this open pit will cause. The SDEIS doesn't suggest any alternatives to reducing impacts on wetlands at the mine site.	ALT01, ALT13
18003	As much as 913 acres will be directly destroyed and 7,350 acres impacted with water and air pollution, and diverting water from these wetlands according to the SDEIS from PolyMet. The high value wetlands in the 100 Mile Swamp has not be touched for thousands of years and will undoubtedly have a negative impacted on wildlife. This could be the biggest wetlands loss ever proposed.	WET23
18004	It is clear that PolyMet is a Shell company and will declare bankruptcy when the mining is done and their officials are not being honest with us. Even PolyMet's own figures show they will need \$200 million for the closing and \$6 million for every year thereafter. How do you figure the cost for Perpetuity? This would leave us, the tax payers of Minnesota holding the bill.	FIN01, FIN02, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Michael L Karels (6631)		
1096	Environmentalists want solar and wind energy and various other energy alternatives but don't take into account where the guts of these products come from or what minerals are used. If you are an environmentalist but you are ok with these minerals coming from China or elsewhere but don't care how they extract it they you are a hypocrite.	ALT16
<b>Sender Name (Submission ID)</b> Michael Larmee (32791)		
13829	Please do not harm Lake Superior and all the waters down flow from the lake.	WR111
<b>Sender Name (Submission ID)</b> Michael Latvala (38422)		
13642	The depth and breadth of study in relation to the NorthMet project has been well conducted and thorough...The project will set new benchmarks for safely extracting and processing these minerals, and should become the new benchmark for copper-nickel mining worldwide.	PD28

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael Latvala (38422)		
13643	I believe that the NorthMet project can be permitted in a way that thoroughly addresses potential environmental impacts while putting a vast, untapped natural resource to greatly beneficial use. This project will provide minerals that are unquestionably necessary for the existence of modern humans, and of critical importance for the future of “green” economies.	SO10
<b>Sender Name (Submission ID)</b> Michael Lieberman (11372)		
12552	The PolyMet NorthMet SDEIS understates the impact of the proposal on greenhouse gas emissions and does not account for reasonable mitigation measures for the carbon emissions associated with the project.	AIR01
12553	The PolyMet SDEIS argues that the direct and indirect increase in carbon dioxide emissions from the project would be to increase Minnesota CO2 emissions by less than 0.5%. However, the project would rely heavily on electricity from the most coal-heavy electrical utility in Minnesota, and should be evaluated against the backdrop of Minnesota's goals to reduce greenhouse gas emissions 15% from 2005 by 2015, and 30% from 2005 levels by 2025. Over the proposed life of the NorthMet mine, its proportion of Minnesota's greenhouse gas emissions will increase, unless there are additional mitigation measures added to the mine plan.	AIR01
<b>Sender Name (Submission ID)</b> Michael Line (47163)		
8415	Lets get people to work... lets have the mine here and benefit from the jobs and the economic impact for our state.	SO10
8421	It’s a fact that these metals will be mined someplace in the world if we don't open this mine. It is almost assured that it will be done with less environmental regulation if that happens in another country.	NEPA05
<b>Sender Name (Submission ID)</b> Michael McCormick (43224)		
11575	The effects on workers’ health and drinking water are not addressed.	HU04
16142	The PolyMet mine would destroy thousands of acres of wetlands, create an immense and permanent industrial mining district in Minnesota's uniquely beautiful and most environmentally sensitive areas, and create a burden of environmental damage of mine dumps, pits, tailings ponds and acid runoff that would blight the landscape for generations and generations, and probably forever.	PD01
16144	Local economies built on mining are boom and bust economies. First, the claimed short-term economic benefits of mining are dubious. PolyMet's claims of job creation deserve skepticism, as automation on the mines reduces the number of jobs, produces short-term low skill jobs, or requires workers with special skills from outside Minnesota. Then invariably the bust comes - relative to the lasting burden of damage, that bust comes in the very short term of 5 or 10 or 20 years. And the bust then endures in the form of impaired communities that people do not want to live in.	SO06
16145	The essential impossibility of capturing acid runoff from the equivalent of thousands of football fields of waste rock has not been addressed - PolyMet's assumptions about seepage are woefully lacking. The effects of runoff on subsurface water flows, about which there is inadequate information and which may well go toward the BWCAW side of the watershed, are not addressed.	WR019, WR070, WR167
16146	The disruption to our national forest lands are not in any way addressed through the proposed land swap, which is a laughably inadequate measure to address the physical damage of the proposed mine. The loss of wetlands, which are ever more rare in Minnesota due to agricultural practices, drainage tiling in fields, urban development and the like, is not addressed. Toxic pollution, in the form of mercury contamination and other heavy metals, is a threat that calls for the highest possible scrutiny.	LU01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michael McCormick (43224)		
16147	PolyMet also appeals to the demand for copper and other metals: undeniably there is demand, but this needs to be dealt with through recycling and more efficient use of those metals, and through locating mines in places that are less vulnerable than our water-rich environment.	NEPA06
16148	The debate should not, however, be about a cleaner mine, or a better permit. Please do not permit hard rock mining, which is one of the most polluting of all industrial activities even when it is done in desert environments, to come into our profoundly vulnerable water environment of northern Minnesota and create irreversible, permanent damage.	PER35
<b>Sender Name (Submission ID)</b> Michael McKenna (11007)		
15462	The PolyMet mine and the exchange of public lands to allow an open-pit sulfide mine and mine wastes on Superior National Forest lands are inconsistent with federal law, public interest and fiduciary responsibilities to tribes.	PER08
15464	The Land Exchange serves only the private interest of a foreign corporation, not the public interest.	LAN01
15465	The Land Exchange won't unify ownership of federal lands. Nearly all of the lands in the exchange have split mineral rights and no legal barrier to surface mining.	LAN04
15466	The Land Exchange results in an unacceptable net loss of high quality natural resources from federal public lands. This includes a net loss of 6,026 acres of areas with high biodiversity; 2,030 acres of mature forest – replaced by 2,000 acres of immature forest; 1,400 acres of floodplains and losses of 11 endangered or threatened species.	VEG01, VEG02, VEG03
15468	The SDEIS does not assess the costs of replacing natural resources values lost when mature forests and pre-settlement wooded wetlands are destroyed. Despite the scandalous history of sweetheart appraisals that favor private interests, taxpayers have seen no appraisal information to show that the PolyMet Land Exchange would meet legal requirements for a fair trade.	VEG03
15470	The PolyMet sulfide mine would reduce lynx habitat by two square miles, kill individual lynx, and impact 2 out of 13 remaining small corridors for wildlife to travel across the Arrowhead region.	WI01, WI02, WI03
15473	The PolyMet sulfide mine plan would also destroy 2,775 acres of habitat for moose, a species critical to tribes, the population of which dropped precipitously by 35% from 2012 to 2013. Yet, the SDEIS contains no analysis of impacts on moose from the PolyMet project.	WI01, WI02
15475	The SDEIS' analysis of harm to resources that are important for tribes relies on implausible assumptions. The SDEIS underestimates the hundreds of years of water pollution from the PolyMet sulfide mine and assumes away impacts on the St. Louis River and tribal resources.	CR01, WR115, WR189
15477	Whether in discussing the PolyMet sulfide mine or the proposed exchange of lands ceded to the federal government by the tribes, the SDEIS disregards the federal government's fiduciary responsibility to protect tribal rights to hunt, fish and gather plants, including wild rice.	CR01
15491	Reject PolyMet's proposed Land Exchange and any other land exchange where lands received by the public have split mineral rights and could be destroyed by future mines	LAN04
15493	Reject the PolyMet Land Exchange as inconsistent with the requirements of federal laws requiring that exchange of public lands be in the public interest and for fair value.	LAN01
15494	Reject the PolyMet project and Land Exchange due to the cumulative and significant adverse impact on endangered plant and animal species and species of concern to tribes.	VEG08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michael McKenna (11007)		
15495	Reject the PolyMet project due to the cumulative and significant adverse impacts on clean water, wild rice, healthy aquatic systems and mercury contamination of fish.	GEN03
15497	Reject the PolyMet project and Land Exchange as inconsistent with fiduciary obligations owed by the United States government under treaties with Indian tribes.	PER08
15499	The SDEIS fails to assess costs of replacing functions lost due to destruction of mature forests, floodplains and high value wetlands.	FIN11, VEG03, WET05
15502	The SDEIS fails to disclose appraisal information for public comment so citizens can scrutinize whether PolyMet would get a sweetheart deal at taxpayer expense.	LU01
15504	The SDEIS fails to analyze alternatives, including underground mining, that could reduce impacts on lynx, moose, and other species that are threatened, endangered or of significance to tribes.	ALT01, ALT10
15505	The SDEIS fails to study cumulative adverse impacts on moose of the PolyMet project and other activities that destroy habitat and increase global climate change.	WI01
15506	The SDEIS fails to provide a cumulative analysis of impacts to clean water, plants and mammals that are significant to tribes and protected under treaties, throughout the tribal Ceded Territories in the Lake Superior Basin.	VEG08
<b>Sender Name (Submission ID)</b> Michael Mlinar (9483)		
174	I believe the project will minimally impact the environment and should proceed.	PD28
<b>Sender Name (Submission ID)</b> Michael Moore (52292)		
10725	Why do we have to mine this resource right now? Why don't we wait till they have the technology to leave no clean up?	NEPA03
10728	I think this [NorthMet] mine is a bad idea [in] such a water rich environment. Where contamination could be so easy and potentially disastrous.	WR195
<b>Sender Name (Submission ID)</b> Michael Noble (16246)		
10330	I am a believer in engineering and technology and I know that industrial economies need metals, but I do not see any good answers from the proponents that they have engineering solutions to seemingly intractable long-term problems of water management.	WR128
<b>Sender Name (Submission ID)</b> Michael Okerstrom (21470)		
1247	I question the effectiveness of the drainage of mercury into Birch lake, and that effect on the fish & wildlife, from the taconite mining in the past that has not been effectively dealt with over the years.	CU18
1248	I question and wonder about the accuracy of the information in the SDEIS, and ... I question the sulfate, metals and mercury discharge containment and possible pollution to the land and waters in that area of our state	WR195
1249	I questions the direct and indirect impact that sulfide mining will have on the nearby wetlands, lakes, water table, and ultimately water shed.	WET24, WR115, WR195

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael Okerstrom (21470)		
1461	I question the financial commitment of ... assurance to clean up the [possible pollution on land and water] they will make in the future... We must require them to put up greater sums of money to ensure their honesty and truth, so they don't walk away with the profits and leave the tax payers with the clean up.	FIN01, FIN05, FIN10
8916	Heavy Metal rock piles, rained on, make pollution. Heavy metal rock piles rained on create water pollution for many years.	WR130
8918	The Polymet proposal must provide details on financial assurance that the pollution they create they can take care of properly.	FIN01
8919	Sulphide mining will create huge amounts of waste rock.	GEN01
8921	There is no rush to start such a high risk operation. The rocks have been there a long time. They are not going anywhere.	NEPA01
8922	The science and analysis of the Polymet proposal must be done correctly. Because the downside, the risk factor to the water, is too great.	WR189
8926	The time period of polluting too long. The methods and techniques are not proven. Polymet has never operated a mine before. The lead agencies must require any potential sulfide mining operators to demonstrate a successful sulphide mining facility. Based on the information, and lack of information provided by Polymet I do not believe Polymet can operate its proposed facility without damaging the surrounding water, nor take care of the waste rock and tailings for the hundred some years required.	PER35, WR115, WR129
8927	Another point no one is talking about is the amount of coal that will be burned in 20 years of operation. This should be calculated and be a consideration of this proposal.	PD39
8928	Polymet has little to lose and privatized profits to gain. The State of Minnesota and its water has much to lose. Let the minerals stay in the ground until they can be safely harvested. It appears they will only go up in value.	NEPA01
8930	The lead agencies should reject the Polymet project as environmentally harmful. The lead agencies should not allow Polymet a state permit to mine.	PER35
8931	The lead agencies should not allow any sulphide mining operations until the operator has a proven facility and provides proper financial assurance.	FIN01
<b>Sender Name (Submission ID)</b> Michael Overend (6027)		
9339	In contrast, Lake Superior, the single largest body of fresh water on the face of the planet stands at potential risk of becoming adversely affected for generations of future citizens.	WR111
10507	If [Lake Superior], or its neighboring watersheds, are damaged by this mining operation, the costs to reverse the damage will dwarf the potential economic benefits to the region.	SO01
10508	These potential environmental costs should be borne by the individuals that seek to profit from the mining. However, the mining industry has a history that does not inspire confidence in carrying out this responsibility...Due to the risk for centuries of potential work necessary to address the potential damage, there is no conceivable way that PolyMet can guarantee that they will address any and all damage that results from their mine.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Michael P Savage (42761)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael P Savage (42761)		
14515	I'm writing to ask you to not permit the PolyMet mine until ALL questions regarding water safety in the Lake Superior Basin are answered with more scientific certainty....PolyMet's suggestion that the likelihood of water pollution at the site will be in the 0.63 percentile region relies on mere conjecture that pumps around the tailings ponds and piles will be efficient, reliable, and sustainable for...how long? a few decades? A hundred years? A thousand years? Well, pumps fail and employees neglect maintenance.	WR021, WR036, WR195
<b>Sender Name (Submission ID)</b> Michael P. Carlin (19974)		
1563	I am in opposition of the mine due to copper cobalt mines history of pollution. I also think that past performance is a direct indication of future output. ... it would be a poor decision to jeopardize the water quality.	WR195
16328	The idea of testing the water quality for 500 years is quite daunting considering the benefit of jobs in the short-term.	SO01
16329	Currently we are using fresh water at a rate faster than aquifers can replenish, and to threaten the little amount of clean fresh water we have would be detrimental. We would be doing irrevocable damage to our ecosystems, threatening wildlife as well as industry centered around a healthy environment.	WI01
<b>Sender Name (Submission ID)</b> Michael Patchin (10069)		
10845	It is my opinion that the PolyMet project has been analyzed and studied extensively by the various government bodies with expertise to provide the necessary safeguards.	NEPA16
10847	My opinion is that the Iron Range area needs the economic stimulus that would be provided by the PolyMet project, together with the various spinoff industries.	SO10
10849	The project will also contribute an economic benefit to the remaining portions of the State of Minnesota and to our country in providing jobs, tax revenues, and positively affecting this country's balance of trade.	SO10
10850	I believe that the environmental safeguards that will be required by the governmental agencies will be designed to protect our environment, and will certainly be a lot stronger than any environmental safeguards established in foreign countries.	PER34
10851	I believe that environmental concerns and economic benefits should be balanced so as to provide well paying jobs with fringe benefits, tax revenues, and necessary minerals that will be consumed in our country and elsewhere, while providing more than reasonable environmental safeguards.	SO06
10854	it is my request that the Minnesota Department of Natural Resources, the US Army Corps of Engineers, and the US Forest Service, complete their review of the environmental impact statement, and their review of this project as a whole, and that permits be issued promptly, so that this overdue project may continue to the construction phase and the operation phase.	NEPA16
<b>Sender Name (Submission ID)</b> michael PRIEST (38898)		
5405	The project presents acceptable environmental risks and should be allowed. This sulfide mining operation IS needed for the future of America.If approved, this first-ever sulfide mine in Minnesota would open the door for future mines . For all these reasons, I urge you to accept the PolyMet mine.	SO10
<b>Sender Name (Submission ID)</b> Michael R Boyd (57235)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Michael R Boyd (57235)		
17180	However, how can any corp put aside money to treat water for the next 200-500 years for a mining operation that will last 30-40 years? How do you invest that money over that time period?	FIN01
17181	We need mining jobs for at least 2 reasons: 1. Minerals needed for our industry coming from inside the US (national defense) 2. Jobs for Americans.	SO10
<b>Sender Name (Submission ID)</b> Michael R. Huber (20182)		
1773	Major points of concern harvested from the document revolve around the centuries long period during which remediation will be required as a consequence of planned mining operations, and the speculative nature of the proposed remediation measures.	PD03
1774	The ultimate costs in human terms alone will far exceed whatever employment/economic benefits might be realized in the next few decades.	SO01
15196	The sustained pollution from proposed operations can, over a five century period, be expected to escape. To pursue such an operation at the headwaters of some of the largest freshwater reserves in North America strikes me as the height of folly.	WR129
<b>Sender Name (Submission ID)</b> Michael Rentz (43123)		
10296	Also, as units considered to be of “High Biodiversity Significance” they cannot simply be swapped out with less significant examples of the same habitat that are, by definition, of lesser ecological integrity.	VEG02
10297	Several of the proposed re-vegetation species are known to be invasive, and simply co-planting with native species and hoping the natives win out is unacceptable.	VEG05
10299	No mention is made, however, of the impact on [lynx] of increased noise. If the animal is “spooked” by the mining noise, the effectively lost habitat could be greater than that which is simply within the direct footprint of the mine.	WI05
15863	[There is] a fundamental misunderstanding of what a site of “High Biodiversity Significance” means. These sites are identified as areas that are among the best examples of the habitat in the state. It is not meaningful to compare these habitats with others in other parts of the state, as they do not perform the same ecological function.	WI02
15864	I was pleased to see the effect of noise on wildlife considered. However I would like to see this concern married with the noise level maps from previous sections to determine the total possible habitat loss, or lower use of habitat by mobile species such as the lynx, eagle, and other birds.	N04
15869	Little mention is made of moose in the wildlife section. What affect would the increased noise have on moose in the surrounding Forest? ... Given the decline in moose in Minnesota, any action which impacts this species needs to be approached with caution. I would like to see some effort made to address noise and vehicle/rail impacts on this animal.	WI01, WI05
15870	The list of possible SGCN does include the heather vole, but does not include 3 other SGCN mammals that may inhabit the region: 1) Microtus chrotorrhinus, 2) Mustela nivalis, 3) Sorex fumeus. The DNR does sample small mammals in the area of the mine (John Erb) and while none of us have captured these species near the mine, an absence of proof is not proof of absence.	WI01
<b>Sender Name (Submission ID)</b> Michael Ripberger (27520)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Michael Ripberger (27520)	
14744	How many citizens, industries, farms and how much wildlife, water sources and acres of soil would this adversely affect, not just in Minnesota but neighboring states as well?	PD01
<b>Sender Name (Submission ID)</b>	Michael Rota (14905)	
13806	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats.	WI13, WR115
<b>Sender Name (Submission ID)</b>	Michael Saima (9663)	
1363	I hope you make the right decision and decide against this project and the potential damage it would do to the water system, that should not be overlooked.	WR195
<b>Sender Name (Submission ID)</b>	Michael Schelmeske (54829)	
18549	The treatment of waste water for 200 to 500 years is incredible. The United States of America is about 237 years old. How can you possibly believe that this company will be around long enough to take responsibility for the long term treatment of the mine site and waste rock site!	FIN01
18551	Wetland mitigation in same watershed has not been followed. You treat our wetland areas as wastelands of no value	WET03
18552	Loss of wildlife corridors with the completed mine and waste rock treatment area and additional roads and infrastructure concern me.	WI03
18553	More light, noise and air pollution will result with this operation.	N01
18554	No study of mercury impacts to Partridge or Embarrass Rivers	MERC02
18561	I have no confidence in this company to take care of this site for 2 to 5 centuries, it will end up in the laps of the Minnesota tax payers. Once the mine is closed it will only be a matter of time till it ends up as a superfund site.	FIN01, FIN10
18567	Windborne dust with fibers from the waste rock will end up in the air downwind of the site. If I have heard correctly the existing taconite waste rock piles on the site are twenty stories high and two and one half miles square. Will the waste rock from the Polymet mine be placed on top of his site? If so this will make this site more exposed to the wind. The prevailing winds in this area are west, northwest, blowing this fiber laden dust towards Beaver Bay, Silver Bay, Isabella, Finland Little Marais, Schroder, Toffe, Lutsen, Grand Marais, Houland, and Grand Portage. Will there be monitoring of these communities for health related problems for 200 to 500 years! Would this company be responsible for this?	AIR03
18568	If the Polymet mine is allowed to go ahead this just opens the rest of Northeast Minnesota to other mine sites that will be right up against the BWCAW and in that watershed. How will all of these mine operations affect the water quality of this area?	CU02, CU04
18569	What effect will this have on local businesses that count on this area to be clean and quiet.	SO04
18572	I am tired of the state using the case that we need to mine these site's to fund our schools, it comes at too high a price... I would gladly pay more money for my child's education given the potential for future health risks that could result from this operation.	SO02
18580	I feel that MNDNR has been heavily influenced by Polymet and their lobbying. The MNDNR is responsible to protect our resources as well as generate income for the state, but I question there protection of resources on this issue.	NEPA18

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michael Smith (2859)		
563	... why hasn't the DNR requested a more detailed financial assurance analysis?	FIN08
566	If I understand the report correctly, the reclamation process would consist of a need to monitor and treat the water for a minimum of 200 years at the mining site and 500 years at the processing facility.	PD05, PD09, PD35
9853	Why hasn't the DNR requested a more detailed financial assurance analysis? How these amounts were determined for example?	FIN05
14333	New mining opportunities provide critical jobs for Iron Rangers....” I will acknowledge there is an ever-increasing demand for metals like copper and the benefits of tax revenues can't be ignored. However, these are hardly justifications to move forward with a plan that says next to nothing about the financial assurance of this proposed mining operation.	FIN10
14334	If I understand the report correctly, the reclamation process would consist of a need to monitor and treat the water for a minimum of 200 years at the mining site and 500 years at the processing facility. Even if the high end cost-estimate of \$200 million were adequate to complete the reclamation process. 500 years is unimaginable!	WR035
14335	PolyMet's proposed mine is not Minnesota's typical mine, but a new toxic producing mine. The long term environmental impact for the state of Minnesota could be catastrophic, leading to the impairment of wetlands and aquatic ecosystems, toxic pollution of drinking water, ground and surface water. Mercury contamination of fish and threats to endangered species.	WI04
<b>Sender Name (Submission ID)</b> Michael Stoos (47166)		
8434	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats	WI01, WI02, WI04
8438	Polymet will be long gone before they have to account for any of the damage done to our state.	FIN01
<b>Sender Name (Submission ID)</b> Michael Vanderford (19802)		
1341	I believe that the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN08, PD03
1344	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats. This trade-off is not worth the risk.	SO01
<b>Sender Name (Submission ID)</b> Michael W Youngquist (57247)		
17374	The actual and potential damage to our environment will be significant and long term regardless of their EIS.	GEN01
17375	We cannot trade a few short term jobs for our beautiful and healthy northern Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Michele Bevis (47198)		
11525	I do not believe that PolyMet will be the first, or one of the first, companies to operate a sulfide mine without creating dangerous pollution. They apparently have a questionable reputation in other parts of the world. What' in it for them to care about our community??	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michele Bevis (47198)		
11532	If it's true that we only recycle 25% of available copper, why not create a copper recycling industry in northern Minnesota?	ALT09, ALT16
14964	PolyMet should not be permitted unless, when the proposed mining stops, the groundwater and surface water is left in a clean condition, and surrounding streams, rivers, and Lake Superior are safe from risk of sulfide mine pollution.	PER04
16923	... I believe it is short-sighted and unsustainable to want jobs for a mere 20 years, then to have your children and grandchildren, and their children's children, deal with eternal water pollution that will affect them, even harm them, and possibly destroy or at least seriously alter, the environment that they profess to love. Not to mention the rest of the citizens of Minnesota who will be paying the taxes for eternal clean up.	SO01
<b>Sender Name (Submission ID)</b> Michele Gonyea (52366)		
17023	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
<b>Sender Name (Submission ID)</b> Michele Jimenez (52439)		
17031	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
<b>Sender Name (Submission ID)</b> Michelle Duhant (43489)		
15543	This operation may compromise the water, as the tailing's basin seeps into the ground water and could go in every direction.	WR103
<b>Sender Name (Submission ID)</b> Michelle Javorina (41746)		
3259	My son now owns the cabin [on Birch Lake] and if this project proceeds we know that the lake and surrounding environment will be negatively changed forever.	LU06
3260	I cannot imagine our wonderful Minnesota north woods being sacrificed for a few years of jobs.	SO01
3261	There is no company that is going to make the pledge and follow through with the financial resources to protect our land and water for us and future generations.	FIN01
<b>Sender Name (Submission ID)</b> Michelle Loseke (38512)		
13575	From what I've read, the companies and people involved either have dismal records on safety or have no record at all as this is their first foray into this kind of mining.	PD23
<b>Sender Name (Submission ID)</b> Michelle Raskovich (19526)		
13437	I am greatly concerned about the water quality impact and what will happen over the years after PolyMet leaves. I feel that over 20 years of mining and we have to spend over 500 years with contamination that will be leaking continuously into our water.	WR115

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Michelle Raskovich (19526)		
13942	There is no guarantee of containment, there is no follow-up on how they're going to pay for all that, and when we're talking about our environment and our children and the generations to come, the 20 years of mining is a small, ridiculous suggestion	SO01
<b>Sender Name (Submission ID)</b> Mick (44373)		
10422	In conclusion your mine will only hurt people, the economy, and most importantly the land and water surrounding our beautiful state	SO03
<b>Sender Name (Submission ID)</b> Miguel Bordayo (54176)		
16400	The reason why you shouldn't drill for copper and nickel is because all the rocks and dirt has sulfuric acid and you are going to wash that into a river, and all that water will turn yellow and kill so much water life.	WR203
16401	And the TNT you are going to use, to make a 20 story building and a length of 5 football field you are going to kill everything.	WI13
16402	All that damage is going to hurt the environment. It's never gonna come too life, its gonna stay dead forever.	WI04
<b>Sender Name (Submission ID)</b> Mikayla Rue (54352)		
18179	Some advantages are that it would upgrade utilities, roads, and railroads. It could also benefit the economy! The project could make 18,000 tons of nickel/copper hydroxide, 113,000 tons of copper concentrate, 32,000 tons of ore, and 500 tons of PGE precipitate each year. In some ways this can be bad, but for our growing economy we need to collect this stuff for manufacturing	SO10
18180	there are some disadvantages with this project. There is land-clearing, which can be hard on the environment. We need to protect the land, it helps us in several ways. If the land is cleared this could allow erosion to happen without the trees there to protect the earth.	VEG03
18181	This project could also affect cultural resources. The land is important to the Indian people for hunting, fishing, and planting.	CR01, CR05
18182	People also, don't like the noise, dust, earth-moving, vibration, visual obstruction, and excavation.	N01
18183	The land exchanges would make sense. It would involve the transfer of 6,650.2 acres of federal lands from public to private ownership, and up to 6,722.5 acres of land to private to public ownership. But this would depend upon the results of the environmental analysis and federal real estate appraisals.	LAN11
<b>Sender Name (Submission ID)</b> Mike (4268)		
10679	PolyMet has done their research. They have systems in place that not only will meet or exceed standards for environmental protection, but they may actually set the bar higher for other mining companies to keep our natural resources intact.	PD28
10681	The local job creation is directly obvious. The indirect job creation this country will see by having the combination of cheaper energy alternatives, as well as the domestic resources mined by PolyMet for building and retooling American companies will be impressive.	SO10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mike (4268)		
10683	Next of course is the economic impact that this mine will have on the communities involved. It is no secret the mine itself will be great asset to both the local area as well as the state of Minnesota. But the impact this project will have in the country will also be established as we see industries moving back to the United States from overseas. Our energy landscape has dramatically improved in the last couple years and because of that, interest in investing in America is returning. Resources found at the PolyMet site are required for America to rebuild and grow.	SO10
10712	With the permit approval, we will see; improved job markets and decreased unemployment, increased tax revenues, more conscientious partners in the mining sector, better advances in water purification, and understanding of the mining resource requirements needed in all industries.	SO10
10721	Reverse osmosis is clearly a winning technology that will win the hearts of all living creatures in the area, including humans.	WR190
<b>Sender Name (Submission ID)</b> Mike Bergh (11528)		
2480	Per EIS Review, I feel that the safety requirements have been fully met. The jobs created by Polymet will be a huge economic boost to the northern MN economy. Thus must go through.	SO10
2480	Per EIS Review, I feel that the safety requirements have been fully met. The jobs created by Polymet will be a huge economic boost to the northern MN economy. Thus must go through.	SO10
10428	when they bury the waste ore, they can ad limestone to neutralize the sulfate acid if there is a problem. Maybe this should be standard practice to help insure limiting potential pollution run off.	HAZ01
<b>Sender Name (Submission ID)</b> Mike Carr (40062)		
6904	Trading 500 years worth of mining pollution for 20 years worth of jobs is irresponsible	SO01
<b>Sender Name (Submission ID)</b> Mike Filipczak (11553)		
2517	All the job it can employ for a lot of people for many of years.	SO10
2517	All the job it can employ for a lot of people for many of years.	SO10
<b>Sender Name (Submission ID)</b> Mike Garramone (19509)		
14819	feel that this reverse osmosis creates a pretty toxic sludge or byproduct from the filtration of the water, and they're going to bury it, and three years later, they're going to rebury it in an on-site double-lined area.	WR145
14820	they should have a shutdown clause, and the reason why I'm saying this is because a lot of these companies, it's easier to pay a fine than it is to fix a problem, so if the permit has a shutdown clause, like three violations and you're done until they fix it, that's what I believe should be instilled here somewhere.	FIN01
<b>Sender Name (Submission ID)</b> Mike Geisdorf (4011)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mike Geisdorf (4011)		
724	In the past 40 years, I have seen the promise of numerous “big” projects come and go with the potential of hundreds or even thousands of jobs come and go right with them...Besides the wood products industry, the only reliable economic development in Northern Minnesota was in the mining industry. They would come, plan, study and then build, with hundreds or thousands of jobs that came directly from the project.	SO10
726	With the recent release of the SDEIS, the issues once troubling both residents and environmentalist alike have been addressed. The studies and engineering completed by the US Army Corps of Engineers, Minnesota Pollution Control Agency, Minnesota DNR, Barr Engineering, ERM and others have finally addressed the numerous water effluent issues of the active mine site.	NEPA16
758	The studies completed by Polymet Mining with the reverse osmosis systems answers the water quality problems with a system that’s quite simple.	PD28, WR190
759	The money Polymet will be setting aside address’s the legacy water issues for generations to come.	FIN16
769	This project and the resulting economic boom that comes with it, represents far more than just a few hundred jobs, it represents vibrant thriving communities with local business districts bustling! It represents modern environmentally friendly sewer systems and potable water treatment systems in our towns on par with the best in the state. It represents residents and travelers driving on clean new intact streets with modern storm sewer systems that direct heavy rains and runoff into proper drainage systems that don’t overflow our sewage plants. It represents school systems with modern amenities’ of fiber optics, high tech computer systems and modern science departments. But most important, our kids have hope! They have hope that remaining in our area will not lead to poverty on their part to remain up north, their home! They have hope that they will be able to raise families on incomes that will afford them a decent standard of living. That having a large family won’t penalize them allowing them to remain around parents and grand parents. That our schools will again become revitalized with children of people who have chose to stay up north for the clean air and water.	SO10
<b>Sender Name (Submission ID)</b> Mike Higgins (42534)		
15583	I feel all the regulations will keep the pollution in check and this is far too great of an opportunity of progress to pass up. The amount of jobs and economical growth is unfathomable.	PER34, SO10
15584	The amount of jobs and economical growth is unfathomable.	SO10
15585	I am an outdoorsmen and fully support a clean environment and I believe Polymet would be able to maintain the best of both worlds both in making a living and supporting a family as well as keeping my hunting/fishing environment safe.	LU07
<b>Sender Name (Submission ID)</b> Mike Johnson (18109)		
3356	Minnesota and the United States of America have a process for approving projects such as this. PolyMet has gone to incredible lengths to satisfy the regulations and the law. It is time for the DNR and other agencies to create a positive decision (inaudible) will allow the benefits of the project to be one step closer to reality for the individual businesses and communities for Minnesota and the United States.	NEPA16
<b>Sender Name (Submission ID)</b> Mike Klein (39444)		
7839	... I propose that a trust fund be established by the mining interest, in an amount determined by a third party assessor, and to be administered by the state, to set aside adequate funds to cover potential environmental impacts over the entire span of project - and subsequent impact - upon the land and waters of the project area.	FIN01, FIN07, FIN08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mike Klein (39444)		
13293	Having reviewed the SDEIS, and the significant environmental impacts of the proposed project, I am concerned that the potential environmental risks and economic, environmental, and social costs associated with the project outweigh the potential economic benefit.	SO01
<b>Sender Name (Submission ID)</b> Mike Kuitu (6270)		
1059	There is no identification of the specific environmental hazards present to the workers working at the Northmet Minesite, let alone the levels of toxicity.	PD29
1060	There is no mention of asbestos or asbestos like fibers becoming airborne.	AIR03
1061	There is no mention of how Polymet will protect these workers from that plus arsenic, mercury, and sulfuric acid. There is no mention of the cumulative effects of these hazards on workers health.	HU04
1187	I ask that you reject the Polymet SDEIS and deny permits to Polymet to proceed with their Northmet Mine.	PER35
2912	the construction workers that work at PolyMet will have good paying jobs. But that's where it ends. We don't know what PolyMet is going to pay their lowest paid workers.	SO04
2913	The SDEIS does not recognize some of these environmental -- these economic environmental hazards that are going to drawdown the rest of The Range and Northeastern Minnesota....There are no agreements for PolyMet to be a union mine...But if you start getting all these mines together and they're paying \$11 an hour, what kind of impact is that going to be to the union mines..What is the lowest wage you're [PolyMet] going to pay?	SO04
<b>Sender Name (Submission ID)</b> Mike Larson (58120)		
19917	I am fully supportive of the Polymet Project. I firmly believe that mining can be undertaken in a fashion that is not harmful to our environment. We need jobs that pay liveable wages.	NEPA05, SO10
<b>Sender Name (Submission ID)</b> Mike Lein (45324)		
13009	I am suspicious of this proposal that allow a mining technique that has a proven track record of failure and pollution to operate in Minnesota, to be operated by a company with no previous experience, and to be operated with no specific backup or contingency plans.	PER35
13012	Even for a seasoned professional such as myself, there is too much to absorb and comment on during a 90 [day] comment period....Where's the documentation of consideration of worst case scenarios?	NEPA07
13013	offer details on financial assurance, even if not legally needed now	FIN08, FIN13
13016	show us that State employees have done their homework on an immense project that has no proven track record other than failure, operated by a foreign company with no operational experience, that will need care and maintenance for 500 years or more.	SO04
<b>Sender Name (Submission ID)</b> Mike Link (6126)		
1040	The location of these proposed mines raises the immediate concern for two of our regions greatest resources – the Boundary Waters Canoe Area – and Lake Superior.	WR111

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Mike Link (6126)		
1041	The impact of the mine will have a positive economic impact for the community in the short run, however, let's be clear – these are International companies and as we know the laborers do not get the majority of earnings.	SO01
1042	These companies have no concern, no commitment to our resources – they simply see profit. But profit for the mines actually means loss to the state and nation. Our resources will be diminished and our state and federal taxes will be required for the infinite treatment of their wastes.	FIN01
<b>Sender Name (Submission ID)</b> mike love & jeanine kelley (41359)		
9318	PolyMet proposes to create 913 acres of destroyed wetlands, but manmade wetlands never have nearly the biodiversity of natural ones that have developed over hundreds of years. In addition, there is no plan to repair damage from pollution & reduced water flow to several thousand acres of other wetlands	WET05
9319	Lake Superior is the most vulnerable of the great lake to pollution because of its cold temperature and lessened ability to clean itself. The Lake Superior Basin needs more wetlands, not less. Sulfide mining has never been done before in water abundant areas without causing pollution. We don't believe that the cumulative effects analysis area was large enough. Along with the Partridge and Embarrass Rivers, the St. Louis River should be studied for the cumulative effects from the proposed NorthMet mine.	WET18, WR023, WR024
9320	Minnesota Rule 6132.3200 states that a mine must be maintenance free when it is shut down. The timeframe for treating the water from the mining site and the tailings site is several centuries. How can this plan comply with state law and how can it be taken seriously?	PER04
9321	We are troubled that the local Minnesota Indian tribes disagree with many of the findings in the SDEIS. The rights of Native Americans should not be impeded to live off of their lands without serious concerns about the water quality for drinking, fishing and wild rice harvesting.	CR01
9322	We don't believe that the alternative of an underground mine was fully studied.	ALT06
<b>Sender Name (Submission ID)</b> Mike Lundstrom (6136)		
1095	I take solace in the fact that Minnesota has some of the most stringent policies in the nation regarding the permitting of mining.	PER34
<b>Sender Name (Submission ID)</b> Mike Maleska (19525)		
14369	What I want to know is what entity will have the authority, or more specifically, the courage to call a halt to this mine when a disaster occurs? Who will tell the workers in their communities that it's all over? What politician wants that responsibility? Is it going to be the Forest Service? Is it going to be the DNR? Is it going to be the U.S. Army Corps of Engineers?	NEPA02
14370	What magnitude of disaster will it take to have this mining process stopped and halted and repaired forever? Is a little poison for a little while okay? Is a little poison for a long time okay? Is a lot of poison for a little while okay?	PD22
14371	What magnitude of disaster does it take to make people realize that this is a permanent change to the ecology and the environment?	GEN01
<b>Sender Name (Submission ID)</b> Mike Malling (52314)		
10797	I'm concerned about the long term impacts of the project. Noise, water pollution, long term contingency plans if the project fails, the endangered lynx, and the fact that this type of mining has never been done without impacts to water are concerns.	PD22

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mike Markell (16202)		
1463	There is no scientific evidence that the waters of the BWCAW will be protected and preserved under this proposal ... I'm not convinced that the cleanup projected to take maybe 500 years (hard to comprehend) is even viable.	WR035, WR111
1464	how can we ensure that there are enough funds to first, protect Minnesota's treasured lands and waters and second, if the proposed project is approved that there will be enough dollars to for protection in the short term and clean up longterm.	FIN05
1465	If we need 300 jobs in Northern Minnesota let's have the Legislature approve a CCC type project (with corresponding funding) of good paying jobs rather than use that as an argument to approve this project. Give the IRRRB the funds and have conservation related jobs created.	SO06
<b>Sender Name (Submission ID)</b> Mike McGill (39236)		
16662	Local property values will be negatively impacted by this project under any and all circumstances. If disaster occurs, and the groundwater and lakes are poisoned, property owners will see the value of their real estate become all but worthless.	SO01
16664	The PolyMet proposal does not adequately address how the inevitable damage will be corrected and paid for. ... How does PolyMet intend to compensate property owners for the loss in value of their land?	FIN01
16665	We have a right to enjoy our property without having the water in our well and / or the lakes being poisoned for the sake of corporate profits.	SO01
<b>Sender Name (Submission ID)</b> Mike Menzel (43033)		
12576	Habitat losses from this [land exchange] include over 6000 acres scored as "high biological diversity", and 1400 acres of floodplains, home to 11 rare species and known habitat for the Moose and Canada Lynx.	VEG01, VEG02, WI02
12583	What are the details of the proposed water treatment systems?Claims in the SDEIS that mercury and sulfate pollution will decrease in nearbywaterways as a result of mining are dependent in large part on operation of water treatment system(s) that are not detailed.	WR035, WR137, WR143
12585	No details are provided as to how the centuries of operations, maintenance, monitoring, and reconstruction of water treatment facilities will be paid for. What financial institution has ever lasted even one century, much less five?	FIN01
12589	Why was an underground mine, which would greatly reduce forest, rare habitat and wetland losses eliminated from consideration as a alternative action due to present economics, alone?...an underground mine would disturb many fewer acres to access the ore in the headwaters of the St. Louis River.	ALT01, ALT06
12591	What is going to be done to correct the inaccurate water flow model that underestimates the amount of water exposed to toxic pollution at the mine site, and that also underrepresents the impact to wetlands in the area?	WR003
13898	However, I feel that we need to explore other job opportunities for the folks up north because this mine has great potential for being an environmental catastrophe.	SO01
13899	And I understand that there has never been a sulfide mine in a water intensive area ever before that has not resulted in contamination or pollution to our waters.	WR023
13900	One point I have not seen brought up is, that I feel needs to be addressed in the EIS, is the high likelihood of catastrophic climate events. And I am referring to the fact that we have already had four one thousand year floods since 2004 in the State of Minnesota. We have seen massive winds, with terrific blow downs up in northern Minnesota, leaving the potential for epic fires.	WR180

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mike Menzel (43033)		
17127	Climate change will greatly affect this project, yet climate change was not even considered in the SDEIS. The project is highly dependent on water. Whether we have a climate that produces too much water or too little water - either way, this important reality must be factored into the statement.	WR180
17128	The proposed US Forest Service land exchange must be rejected: it is not in the public interest. The lands offered in trades do not include mineral rights- setting up future mining conflicts. The existing law prohibiting surface mining in the Poly Met area (Weeks Act) will not apply for nearly all of the traded lands - weakening protections for our national forest.	LAN02, LAN04
17130	The proposed wetland mitigation only covers the 912.5 acres of direct wetland impacts. The Section 404 wetland permit must be rejected. With more than ten square miles of additional wetlands projected to be “indirectly” impacted by water drawdowns and toxic materials, what will be done to assure that wetland impacts will be replaced before these effects are noticed by monitoring? Bogs and coniferous swamps of the sort likely to be affected are extremely difficult to restore. It is insufficient to propose a monitoring plan - with any replacement to be determined in the future. (SDEIS 5.2.3.3.4)	WET01, WET02
17132	The entire 3014 acre mine site has been classified by the Minnesota Biological Survey as of “High Biodiversity Significance”. Two state endangered, two state threatened and seven state special concern plant species have been found on the mine site. Six “Regional Foresters Sensitive Species” (federal forest plant species of concern) are found on the mine site. (SDEIS Section 4 pp 173- 188) The SDEIS generally describes the impacts as too small to consider significant. (SDEIS Section 5 pp 339-354).	VEG01, VEG02
17135	the inaccuracy of the water model...throws into question assumptions about future mercury levels in the Partridge and St. Louis Rivers.	MERC11
<b>Sender Name (Submission ID)</b> Mike Neaton (17576)		
9355	The [SDEIS] has many failures: 1)to address the correct flow of base water, 2)specify the under water crevices that will allow water to flow in pathways that are sited as clay, 3)show the correct flow to the 100 mile swamp feeding eventually to the WCA	HU01, WR003, WR010, WR011, WR012, WR024, WR052, WR061, WR071, WR080, WR081, WR090, WR091, WR111, WR167, WR175
9356	[T]he purposed operation is expecting a public monitoring for 500 years and counting!! No business enters a contract with liabilities that extend for a time period of this length.	PD01
12824	The [SDEIS] fails to address the health regarding the working conditions.	HU04
12825	If approved, this first-ever sulfide mine in Minnesota would open the door for future mines that would endanger the Boundary Waters wilderness.	WILD02
<b>Sender Name (Submission ID)</b> Mike Perala (18105)		
13471	I speak tonight in support of the review process managed by the Minnesota DNR. Some people think it a long process. I think that the length of the process has been dictated appropriately by the complexity of the project and the robustness of the area mine site.	NEPA16
<b>Sender Name (Submission ID)</b> Mike Schrage (45109)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Mike Schrage (45109)	
7614	The lead agencies should at least give full consideration to the costs and benefits of extracting this ore by other means including underground mining.	ALT01
7615	I don't feel the SDEIS adequately considered the costs and benefits of alternatives (including not doing the project at all) to open pit mining.	ALT20
7616	I don't believe the SDEIS has provided adequate financial assurances the residents of Minnesota won't be stuck with clean up and reclamation costs following the mine's closure.	FIN01
7621	The proposed land exchange should not include 382 acres of Lake County land. This represents a net loss of public land opened for hunting, fishing, trapping and other forms of outdoor recreation. ... No part of this or future mining projects should result in a decrease of public lands.	LAN06
7624	The SDEIS does not adequately discuss impacts to outdoor recreational pursuits such as hunting and trapping nor does it adequately discuss impacts to traditional game and furbearer populations. This is a major discrepancy in these documents as healthy wildlife populations of all species, not just rare or sensitive ones, is critical for many residents and visitors to northeast Minnesota.	WI09
7626	The existing wildlife corridors are inadequate to maintain connectivity across the Iron Range. ... The SDEIS admits increasing development of urban areas alongside the corridors will render some of the existing corridors less suitable for wildlife in the future. Increased urban development and associated transportation and utility infrastructure should be expected if the project provides the economic benefits stated in the SDEIS. This issue should be mitigated before NorthMet or additional mine development goes forward through the establishment of dedicated and protected wildlife corridors and the reclamation of existing mine land.	WI03
7628	As more mines are developed, fish and wildlife populations are going to increasingly suffer negative impacts either through direct loss of habitat or indirectly through disturbance.	WI01, WI02
7633	There should be a mine reclamation aspect to this project and all mining projects going forward. There is no apparent reclamation aspect of existing mine lands to this project and this is also a discrepancy of this SDEIS.	PD09, PD35
7638	nor does [NorthMet] offer sufficient assurance that the economic costs of cleanup and monitoring following closure are adequate and won't have to be picked up by taxpayers.	FIN01
16968	The greatest natural resources we have are our abundant public lands, clean water and healthy populations of fish and wildlife. These resources have both economic and intrinsic value and properly cared for they are infinitely renewable. They should not be put at risk for comparatively short term profits.	SO01
17009	Simply exchanging private land for public land isn't enough. The only way to begin to counter balance this loss is to reclaim existing mine lands and work to reestablish public access and healthy fish and wildlife populations on them.	LAN01
<b>Sender Name (Submission ID)</b>	Mike Zicus (42908)	
10138	an underground mine should not have been eliminated from consideration as an alternative action. It seems to have been dismissed solely due to present economics (e.g., Table 8.1 MDO #5, Appendix C pp. 43 - 46). (...) An underground mine would certainly destroy many fewer acres of natural habitat, having a lower cost associated with habitat destruction.	ALT01, ALT06
10140	Two state endangered, two state threatened and seven state special concern plant species have been found in the immediate vicinity of the proposed mine site. The SDEIS generally describes the impacts as too small to consider significant (SDEIS Section 5 pp. 339 – 354.)	VEG01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Mike Zicus (42908)		
10142	The proposed wetland mitigation for the open pit mine covers only 900 acres of wetlands directly impacted by the operation. Yet between 6,500 and 7,350 acres of additional wetlands are projected to be “indirectly” affected by water loss and/or accumulation of toxic materials. What will be done to assure that the full ecological function of these wetland will be restored or replaced? Many of these wetlands will be bogs and coniferous swamps which are extremely difficult to restore or replace	WET01
10146	Discussion of the possible impacts to stream flow are also inadequate. Page 39 of the Executive Summary has misleading statements regarding flows of water into the Embarrass River. (...) What would happen if we actually experienced a severe drought on top of the acknowledged dewatering that is proposed? (...) The consequences of long-term de-watering of tributary streams (especially effects on temperature regimes) must be included and assessed as an impact. Descriptions of mitigations are needed to address the dewatering that the SDEIS acknowledges would occur.	WR048, WR130, WR138, WR180, WR182, WR188
10151	The document acknowledges that the proposed mine site would generate contaminated runoff for 200 years and that the proposed processing site will contaminate runoff for 500 years. (...) What mining company is going to operate for even 200 years? The risks to our water resources are just too great and PolyMet’s assurances too problematic to take a chance with this level of future contamination without more specific description of the remediation (and associated costs) that will be undertaken.	FIN01, FIN05
10161	The SDEIS also states that the “...potential exists for the release of amphibole mineral fibers from the proposed operations which could pose a potential public health risk of uncertain magnitude.” Medical professionals ( <a href="http://www.duluthnewstribune.com/event/article/id/292659/group/Outdoors/">http://www.duluthnewstribune.com/event/article/id/292659/group/Outdoors/</a> ) recently identified these asbestos-like fibers as a significant potential for risk to human health that must be addressed by the SDEIS. Effective mitigation measures for air-borne amphibole mineral fibers and the costs associated with these measures must be included in the SDEIS.	AIR03
19089	There are also Major Differences in Opinion regarding the stream base flows modelled in the analysis (Appendix C, Subsection 1) that need to be better resolved. These modelled values have a critical effect on estimated concentrations of contaminant in the watershed and leave unanswered questions regarding the consequences to water quality. Discrepancies in the hydrologic models must be resolved.	WR003
19097	there is insufficient information regarding how PolyMet proposes to conduct water treatment such that mercury and sulfate levels might be reduced in the affected streams and wetlands. In fact, information in the SDEIS suggests that these contaminants might increase.	MERC15, MERC23
<b>Sender Name (Submission ID)</b> mikem28 (39660)		
7365	I don't want MN to end of looking like Detroit.	LU04
13652	The financial benefits are a deciding factor in my opinion to approve. You just need to make sure the environmental factors are accounted for. As long as the company can take responsibility for their actions, the economy needs a boost in jobs and tax revenue.	FIN16
<b>Sender Name (Submission ID)</b> miles holets (21979)		
3309	I support the development primarily for two reasons: ... 1. Our country is stronger when we do not need to rely on foreign countries for our infrastructure minerals and materials.	NEPA05
3310	I support the development primarily for two reasons: (...) 2. Economic strength jobs and taxes will provide.	SO10
<b>Sender Name (Submission ID)</b> Miles Kramer (41828)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Miles Kramer (41828)		
15444	•The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17, WR067
<b>Sender Name (Submission ID)</b> Mimi Jennings (10715)		
1482	I'll focus on its parent company. Most galling: while PolyMet has never operated a mine anywhere, it's owned primarily a known quantity with an abysmal environmental, ethical and labor record: the Swiss international commodities and mining giant (50% of all mines worldwide), GlencoreXstrata. Glencore was originally called the Marc Rich Company (charged with tax evasion, accused of doing business with Iran during the hostage crisis, pardoned by President Clinton right before he left office – that Marc Rich). Now Tony Hayward is chairman of Glencore's Board of Directors. He's the guy who was running BP at the time of the Deepwater Horizon oil spill. Remember that he botched the handling of the fire and then attended a yacht race while oil polluted the Gulf, announcing that he "wanted his life back?" That Tony Hayward. Some Glencore history:· BBC investigation accusing Glencore of dumping copper refinery acid into a river in the Democratic Republic of Congo· more than a million dollars in environmental fines worldwide since 2010· 500,000 Euro Belgian court fine in a corruption case· various contracts with Iran during sanctions· named the number one most difficult company to do business with by an international coalition of environmentalists· Glencore subsidiary fined for violating copper trading rules. Why do we even want these guys in our state, let alone undertaking such delicate operations in our pristine waters? It's like letting a known child molester babysit your own kid. Not wise. Wrong. Bad decision.	PER02
13959	This is an exceedingly risky proposal with little upside, which is reason enough to distrust estimates provided by PolyMet without independent state verification. In addition, its parent company's checkered history and that of its board chair demand extra vigilance.	PD01
14212	The Supplemental Draft Environmental Impact Statement (SDEIS) is insufficient and should not be approved because, among many reasons, it lacks vital information about centuries-long water treatment and how it might be assured--information that is necessary to evaluate the environmental effects of this proposal.	WR036
<b>Sender Name (Submission ID)</b> Minh Cat Thai (54229)		
16798	Environment is very important. To able to live a healthy life, we need a fresh environment and clean water to survive. The Poly Met Mine needs to test the water's quality to make sure the water is still fresh and clean. Pollution in water not only affects the fish and small animals. It is also affected our life negatively.	WR115, WR195
<b>Sender Name (Submission ID)</b> Mining Minnesota (42956)		
12663	The Proposed Project Will Have No Impact on the Boundary Waters Canoe Area. The SDEIS clearly points out, BWCA and Voyageurs National Park are located in a different watershed than the NorthMet Project area, and lie 20 miles and 50 miles away, respectively. The NorthMet Project Proposed Action would not directly, indirectly, or cumulatively affect the water quality of these areas.	CU20
12664	The Proposed Project Will Not Create Acid Rock Drainage. Almost all the water PolyMet's NorthMet project will manage on its property is in the pH neutral range, including all the water in the tailings basin, the mine pit, and water from the largest and only permanent stockpile on the mine site. The small portion of waste rock will be returned to the open pit during reclamation and it will be covered by water, no longer able to generate acid.	WR190

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Mining Minnesota (42956)	
12666	Sulfate and Mercury Standards Will Be Met by the Proposed Project. The project will meet the strict Minnesota standard for wild rice waters, and the project will meet the Great Lakes mercury standard of 1.3 nanograms per liter. The SDEIS makes very clear that there will be a net decrease in both sulfate and mercury loadings as a result of this project. The water will not be hazardous and will be swimmable and fishable water.	WR161
12671	The Proposed Water Treatment Works...the water control and treatment methods proposed in the PolyMet NorthMet project work. The extensive monitoring and modeling demonstrate that, regardless of flow rate, and regardless of length of treatment needed, the project will always be in compliance with water quality standards.	WR190
12677	Financial Assurance is More Than Adequately Discussed in the SDEIS...Financial Assurance that covers all costs related to closure and post closure maintenance are clearly required in Minnesota statute and rule before a permit to mine can be issued. Financial assurance is properly addressed during the permit to mine stage of permitting.	PER03
12680	The proposed Land Exchange will exchange certain lands in the Superior National Forest (SNF) for equivalent value non-federal lands that will be provided by PolyMet. The SDEIS provides adequate support for the conclusion that this Land Exchange is consistent with the management of the SNF and governing Land Exchange requirements.	LAN11
12685	Agencies Should Move Quickly to Publish a Final EIS and Proceed to Permitting. The SDEIS is comprehensive and adequately addresses all potential impacts...The SDEIS identifies how all impacts will be mitigated, and the project will be in compliance with all air and water quality standards.	NEPA16
14965	Jobs and Economic Development Resulting from the PolyMet NorthMet Project are Essential to Minnesota's Future...The PolyMet NorthMet project will provide the following economic impact:•\$720 million in wages and benefits•\$10.3 billion in economic benefit to St. Louis County•\$300 million in new local and state tax revenues estimated•\$900 million in new federal tax revenues estimated•\$500 million in capital construction approximately, requiring 2 million construction hours•360 full-time jobs in the mining operation•600 plus related indirect jobs	SO10
14966	PolyMet NorthMet project will produce copper, nickel, platinum, palladium, cobalt, and gold. All of these metals are essential to our economy, and metals that we are import dependent for a significant percent of our domestic consumption.	SO10
<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5614	In the SDEIS, waste rock is defined as the rock “without economic value that surrounds ore.” However, MCEA does not agree with this definition. Waste rock is better defined as rock surrounding ore from which any metals or other minerals cannot be economically processed.	PD15
5615	PolyMet’s model predicts that this structure would collect over 90 percent of the seepage. However, PolyMet’s modeling assumes that no water will flow into the bedrock. The success of this collection system depends upon zero fracturing in the bedrock, the efficacy of construction of the barrier, and the ongoing operation of the pumps inside the barrier to prevent overflow.	WR018, WR021, WR099, WR131
5616	The water that would need to be collected and treated at both the plant site and the mine site after closure (Year 40 and beyond) would include at least 22 metals. PolyMet predicts that some of these metals will be present at levels that exceed water quality standards, including arsenic, cobalt, copper, nickel, zinc and sulfate. Many of these constituents are toxic to aquatic life and can pose a public health threat.	WR109
5617	PolyMet constructed a water quality model to run for 200 years at the mine site and 500 years at the plant site. At the end of the duration of the model, pollutants in the water are still high, in some cases many times the applicable state water quality standard.	WR035, WR037

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<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5618	Figures 1 and 2 [of water quality modeling in full comment letter] demonstrate that copper and sulfate persist at high levels in the Year 200, and do not appear to be on a downward trend. Figures 3 and 4 only extend out to Year 80 – PolyMet did not produce graphs showing constituents through Year 500, although the model extended for that period.	WR035
5619	There is substantial uncertainty surrounding the length and type of water treatment that may be required at this mine after closure. In MCEA’s opinion, such uncertainty means that, from a policy perspective, water treatment must be considered to be perpetual.	WR035
5620	The SDEIS also states that development and implementation of “non-mechanical” water treatment systems would be part of the long-term activities at the site. To date, PolyMet has not proven a successful “non-mechanical” water quality treatment strategy.	WR137
5621	The SDEIS does not examine any Action Alternatives as to the mine plan. There is an alternative to the land exchange, although this alternative appears to be aimed more at achieving Forest Service Management objectives, as opposed to offering any particular environmental benefits.	ALT06
5623	Overall, the NorthMet SDEIS does not take the “hard look” required by law. Rather, much of the information provided is encyclopedic, describing ways in which the Project purports to fit within various regulatory regimes. In many areas the SDEIS lacks real assessment of the environmental and health impacts resulting from the Project. It assumes that all mitigation measures perform perfectly, not merely for the 20-year life of the mine, but for hundreds of years afterwards. This is simply not a supportable assumption, and the SDEIS fails to evaluate both the effectiveness of mitigation measures, and the impacts in the event that they fail.	NEPA09
5624	As discussed, below, MCEA has identified substantial inadequacies in the SDEIS. As a result of these inadequacies, it is not sufficient for the co-lead agencies to merely prepare a Final EIS. The Co-Lead Agencies must first submit a revised Draft EIS for public review and comment. MCEA urges the Co-Lead Agencies to require additional evaluation of environmental effects consistent with these comments prior to publishing a final EIS for the NorthMet Project.	NEPA15
5625	If the state does not obtain adequate financial assurance to pay for that maintenance and water quality treatment, than the prediction in the SDEIS that the project has minimal environmental impacts will be flatly incorrect. ... Minnesota law requires that an EIS “shall identify those measures that could reasonably eliminate or minimize any adverse environmental, economic, employment, or sociological effects of the proposed project.” Similarly, under federal law, an EIS must include a discussion of “means to mitigate adverse environmental impacts...” ...Financial assurance is a mitigation measure designed to avoid the impacts altogether because adequate financial resources must be available in order for many of the other mitigation measures – such as water collection and treatment – to stay in place after closure.	PER03
5628	Additionally, financial assurance must be included in the EIS because the potential impact on Minnesota taxpayers is the type of economic and sociological effect that falls within the ambit of MEPA and NEPA.	FIN13
5629	Finally, the inclusion of information regarding financial assurance is critical to allow the public to fully understand and assess the effectiveness of reclamation and closure activities.	FIN13
5630	Including financial assurance information in an Environmental Impact Statement is becoming standard practice, especially for mining operations that are reasonably anticipated to require long-term water treatment. (See attached letters from EPA, Region 9, and Region 10, concerning mining operations in which the EPA sought financial assurance information as part of the environmental review process.)	FIN13

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<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5631	Indeed, while the Co-Lead Agencies state that financial assurance is “typically made available at the permitting stage,” it is unclear what the basis of this “typicality” might be, since federal EIS commonly do include financial assurance (Chambers p. 5). One example of reclamation plan with an appropriate level of planning detail and cost estimates is the Pogo Project in Alaska (Chambers p. 6). Another example, cited by U.S. EPA in its comments on the NorthMet DEIS in 2010, is the Idaho Cobalt Mine.	FIN13
5632	The Co-Lead Agencies have not provided a sufficient basis or explanation for being unable to estimate financial assurance requirements associated with reclamation at the SDEIS stage. If the adequate “level of engineering design and planning” is not available for financial assurance purposes, how is it available for determining the extent of significant environmental impacts of the project, whether during operation, reclamation or closure? The SDEIS offers no reasonable distinction between the amount of design detail required for financial assurance and the amount of design detail to evaluate the project’s environmental impacts.	FIN05
5633	Complete financial assurance analysis and projections must include not only the final cost estimates, but also all supporting calculations.	FIN05
5634	The Co-Lead Agencies Must Explain Why They Have Included The Projections of PolyMet’s Consultant, Foth Engineering, In The Document, If It Is Not Possible To Make Financial Assurance Calculations At This Stage. ... for a company to bring a project to this stage without having performed some internal calculations related to financial assurance would be fiscally irresponsible to the company’s shareholders and board of directors ... Yet, the co-lead agencies expect the public to take on potential liability without similar information. The public is owed at least as much as PolyMet’s shareholders and board of directors. The calculations underlying the numbers in Table 3.2-15 in the SDEIS should be disclosed to the public, or similar calculations made by the Co-Lead Agencies.	FIN05
5635	While DNR has insisted that financial assurance may not be calculated at this phase (a proposition with which MCEA disagrees), that should not prevent the Co-Lead Agencies from including information that is not dependent upon whether the details of the proposal are finalized, including the discount rate.	FIN05, FIN08, FIN13
5636	There are five options typically mentioned in associated with financial assurance: trust funds; surety bonds; letters of credit; certificates of deposit; and insurance policies. (Thometz, p. 1). Of these, only trust funds meet the statutory requirements [MR 6132.1200] and are likely available and economical for PolyMet.	FIN08
5637	No third-party guarantee instrument, whether it be a bank letter of credit, a surety bond, or an insurance policy, can meet the requirement in Minnesota’s rules that the instrument not be “dischargeable through bankruptcy,” ... First, banks, sureties, and insurers can go bankrupt themselves. ... Second, bankruptcy courts can and do release non-debtor guarantors from liability for a bankrupt debtor’s obligations, using their broad injunctive power under 11 U.S.C. sec. 105, which authorizes the court to issue “any order, process, or judgment that is necessary or appropriate to carry out the provisions” of the U.S. Bankruptcy Code.	FIN01, FIN03, FIN08
5638	It is also not clear that an insurance policy, surety bond or even Letter of Credit meets the requirement that “the funds will be available and made payable to the commissioner when needed.” ... If the insurance company or bank perceives a weakness in the state’s claim to collect on the instrument or contract, or the circumstances that require the state to step in on cleanup at the site do not precisely match the contractual language that obligates the insurer or bank to pay out, then a contractual dispute may ensue and the state may not have immediate access to the money.	FIN08
5639	Letters of credit, surety bonds, insurance policies, or perhaps hybrid instruments could offer a form of reinsurance to back up trust funds created for reclamation, contingency response, and long-term water quality treatment. Similarly, corporate guarantees (by parents, affiliates, or financiers) and periodic financial tests can bolster a financial assurance arrangement. They simply cannot be a substitute for a trust fund arrangement, the only mechanism that meets the rule’s requirements.	FIN08

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<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5640	no investment is truly “risk-free,” especially over the time frames contemplated by the state in the SDEIS. (Thometz, p. 1-2). Major banks and insurance companies fail, and governments default on debt. Indeed, it is impossible to even assess the credit-worthiness of an institution over 200 years. (Thometz p. 2). Moreover, it unlikely that financial instruments other than a trust fund would be economical, assuming they are even available. ... Thus, only U.S. Treasury Bonds, held in a trust fund by the state, offers the security required by Minnesota Rules.	FIN03, FIN08
5641	MCEA strongly urges the state to set a value for financial assurance obligations and require PolyMet to show that it could meet that obligation as early in the process as possible. The state should not simply assume that a variety of financing options are available to PolyMet.	FIN07
5642	Federal NEPA regulations state that an agency may use information submitted by an applicant in an EIS, but “[t]he agency shall independently evaluate the information submitted and shall be responsible for its accuracy.” ... In this case, the Co-Lead Agencies have merely reprinted a range of reclamation costs and post-closure costs directly from a memo produced by Foth Engineering, PolyMet’s consultant. ... MCEA must presume that DNR has never asked PolyMet’s consultant to “show its work” on how it arrived at the numbers in Table 3.2-15. Thus, the agencies have not “independently evaluate[d]” the information in Table 3.2-15, nor have they “verified” that work is acceptable.	FIN05, PER03
5643	First, it violates Minnesota Rule 6132.3200, promulgated by the MDNR in 1992. ... [The] “objective” of closure for the NorthMet mine is not to close the area so that it is maintenance free, as prescribed by Minnesota Rule 6132.3200. Rather, it is to “provide mechanical or non-mechanical treatment for as long as necessary to meet regulatory standards at applicable groundwater and surface water compliance points.” Indeed, this objective is precisely the opposite of the regulatory requirement.	PER04
5644	MDNR cannot force PolyMet to fulfill the legal obligations necessary for it or its Canadian parent to continue to exist as a corporation. Nor can it require PolyMet to hold any amount of assets within the corporation that could potentially be available to pay for long-term water quality treatment, let alone penalties for failure to perform any cleanup activities at the site. Keeping PolyMet on the Permit to Mine will not change the fate – financial or otherwise - of the NorthMet site after closure.	PER02
5647	An agency may not disregard an alternative merely because it does not offer a complete solution to the problem. As discussed below, the SDEIS failed to meet the requirements of NEPA by failing to adequately evaluate reasonable alternatives to the NorthMet Project, including the West Pit Backfill Alternative, and the Underground Mine Alternative.	ALT20
5649	In addition, MCEA proposes a new alternative that has not previously been considered based on the expert analysis of the water quality model – allowing the West Pit to refill without pumping.	ALT05
5650	The Co-Lead Agencies’ conclusion that the underground mine alternative is not economically feasible is based on an economic assessment performed by Foth, a PolyMet Consultant. However, as noted by Dr. Chambers, the economic assessment performed does not analyze the sensitivity of the assessment to changes in metals prices. (Chambers p. 18). Underground mining may well be economically in the future with an increase in metals prices and refinement in the processing technology costs. (Chambers p. 18). ... MCEA also notes that an underground mine may still fulfill this purpose, even if the project is delayed until mineral prices rise.	ALT01
5651	Under Minnesota law, an alternative in the EIS process cannot be rejected solely due to financial considerations. The Minnesota Environmental Policy Act (MEPA), under which this environmental review is conducted, and the Minnesota Environmental Rights Act (MERA) both prohibit projects that cause or are likely to cause pollution, impairment or destruction of Minnesota’s environment where feasible and prudent alternatives exist. ... In other words, an alternative cannot be rejected merely on the basis of cost.	ALT21

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<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5652	Appendix B of the SDEIS notes that the Underground Mine Alternative would result in fewer socioeconomic benefits because it would reduce the life of the mine, as well as tax benefits. MCEA notes that the tax benefits described in the SDEIS are unsupported; therefore it is difficult if not impossible to quantify this potential drawback without further information about projected tax revenues.	ALT01
5653	The Co-Lead Agencies screened and rejected the West Pit Backfill alternative, in part because the agencies concluded that it did not provide significant environmental benefits as compared to the project, and in part because of economic infeasibility. In fact, the Co-Lead Agencies have identified merely speculative reasons why the West Pit Backfill would not provide environmental benefits. The Co-Lead Agencies did not ask PolyMet to any water quality monitoring or projects associated with backfilling the pit, detailed cost/savings estimates, or projected configurations of shallow-water wetlands that may be feasible. MCEA agrees that these are steps more appropriately associated with the consideration of an alternative in the SDEIS, rather than a screening process. However, MCEA contends that the Co-Lead Agencies' conclusions regarding the West Pit Backfill were premature, and full consideration of the West Pit Backfill as an alternative in the SDEIS is warranted.	ALT03
5654	even though the Category 1 stockpile would still impact wetlands in the short-term as a temporary stockpile, removing the stockpile provides an excellent opportunity to reclaim a large portion of the site after closure. The Co-Lead Agencies note that wetland restoration at the removed Category 1 stockpile site would not provide PolyMet with wetlands credits. ... While wetlands restoration in 20 years at the site may not provide a financial benefit to PolyMet because it already had to mitigate wetlands losses, it will still provide an environmental benefit.	ALT13
5659	Additionally, the conclusion that PolyMet will not gain wetlands credits from the restoration at the removed Category 1 stockpile site may not be correct. Wetlands restoration at the site may well provide PolyMet with needed wetlands credits for indirect wetlands impacts at closure. ... Rather than require mitigation in advance, PolyMet proposes to monitor for wetlands impacts and mitigate as needed. While MCEA has concerns about this approach ... it may well be that PolyMet will need additional credits at closure due to continued indirect impacts on wetlands, and the acres under the removed Category 1 stockpile will provide a good opportunity for in-watershed restoration.	ALT06
5661	The Co-Lead Agencies conclusion that a West Pit Backfill would increase constituent loading to groundwater fails to compare any increase in constituent loading from subaqueous disposal to the constituent loading from the Category 1 stockpile, left on the site into perpetuity. In other words, while subaqueous disposal of the Category 1 stockpile may increase constituent loading in the West Pit, it will also eliminate a source of pollution on the site (Myers SDEIS Review, p. 1-2).	ALT03
5663	A West Pit Backfill alternative may provide advantages for water quality. ... The Co-Lead Agencies may contend that the Category 1 stockpile is not a source of pollution because of the Category 1 Waste Rock Stockpile Groundwater Containment System and Cover. ... If the Category 1 Stockpile Containment system does not perform as designed, the seepage will travel to the West Pit. The seepage from the Category 1 Stockpile will have extremely high contaminant levels. Sulfate in the stockpile drainage, for instance, is projected to be anywhere between 2,500,000 and 4,000,000 ug/l.	ALT03
5665	A West Pit Backfill alternative may provide advantages for water quality. ... It may well be that Category 2,3 or 4 rock will be inadvertently stored in the Category 1 stockpile due to limitations in sorting technology (Maest p. 14). However, constituent loading from the Category 1 rock stored subaqueously in the West Pit may be less because the material will no longer be exposed to oxygen. (Maest p. 14)(Miller p. 5).	ALT03
5667	A West Pit Backfill alternative may provide advantages for water quality. ... A complete analysis of whether the West Pit Backfill Alternative improves water quality must compare the effects of loading from the Category 1 stockpile to the effects of subaqueous storage.	ALT03
5669	The West Pit Backfill Alternative may provide other benefits. ... MCEA agrees that the reclamation, from an aesthetic standpoint, has been successful [at the Flambeau Mine]. Removal of the Category 1 stockpile may provide similar results at the PolyMet site.	ALT03

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5671	PolyMet has not provided evidence of encumbrance of mineral leases. PolyMet must support its claim by providing contractual agreements or other evidence. PolyMet must also provide some evidence that this pit could ever be remined, which would be quite unusual. (Miller p. 5). Nor is it clear that backfilling the pit imposes additional encumbrances beyond filling the pit with water. (Miller p. 5). It would already need to be dewatered because it would become a pit lake; under the West Pit Backfill Alternative, it would also need to be excavated (Myers SDEIS Review p. 2). In either case, substantial expense will need to be incurred if the mineral rights adjacent to or beneath the West Pit were to be accessed. (Miller p. 5) ... The Co-Lead Agencies must provide additional support for the claim that there is a difference in encumbrance of the leases between a pit lake and a backfilled pit lake.	ALT03
5673	The West Pit Backfill Alternative may also reduce costs post-closure. For instance, it would eliminate the cost of maintaining the geomembrane over Category 1 stockpile, as well as the Category 1 Containment system, including pumps. It may reduce or even eliminate the need for wastewater treatment at the mine site.	ALT03
5675	The Co-Lead Agencies seem to agree with PolyMet that the West Pit Backfill alternative may “affect the ability of the Project Proposer to secure financing for the action, thus rendering it economically infeasible.” First, this statement is extremely speculative.... The Co-Lead Agencies should require additional support for this claim. Second, financial viability alone is not a valid reason to reject an Alternative in an EIS. ... Third, the West Pit Backfill may result in decreased water treatment needed over time, actually decreasing costs. ... Thus, if the cost of backfilling the West Pit increases the capital costs, but decreases the bond that PolyMet must offer as financial assurance, the West Pit Backfill alternative may, in fact, be a net reduction in costs of the project, or at least increase costs less than is assumed.	ALT03
5676	Dr. Myers has found that West Pit pumping causes water quality exceedances between years 20 and 40 because it forces water through the surficial aquifer north, into Yelp Creek. Discharges into Yelp Creek would include uncollected runoff from the Category 1 stockpile. This can be avoided by allowing the West Pit to refill naturally.	ALT05
5679	Allowing the West Pit to refill without pumping may also cause a decrease in flow to the Partridge River because the West Pit will draw water from a larger area, and for longer, than if it is pumped full. However, it is not clear how significant this impact is. Also, PolyMet may be able to mitigate this impact by supplementing flow in the Partridge with discharge from the WWTP.	ALT05
5681	The Land Exchange alternative does not appear to fulfill the requirements of NEPA. ... The land exchange alternative does not appear to offer any environmental benefits. According to the SDEIS, it was included because some commenters raised the question of whether fewer federal lands need to be exchanged early during the scoping process. ... Land Exchange Proposed Action and Land Exchange Alternative B, it does not discuss whether federal ownership is more or less likely to be protective of those resources. Indeed, it appears that the purpose of the Land Exchange Proposed Action is to fulfill the purposes of the Forest Service planning goals, such as avoiding land fragmentation. And while the US Forest Service is free to pursue its own goals and interests, it is not clear that this particular alternative meets the purposes of an Alternative as defined by NEPA. If this alternative provides environmental benefits, those benefits should be identified in the SDEIS. Otherwise, this should not be considered an alternative for the purposes of the SDEIS.	ALT23
5683	In order to determine the potential for significant environmental effects, the water quality models compare the effects of the project to a Continuation of Existing Conditions scenario. The SDEIS acknowledges that additional management and mitigation would take place under the No Action Alternative. Yet it fails to take this into account when evaluating the environmental effects of the project under its water quality model	ALT14

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5685	The SDEIS fails to evaluate the potential effectiveness of mitigation measures. Instead, it assumes that mitigation measures perform perfectly for hundreds of years. ... The PolyMet SDEIS is replete with mitigation measures; however it fails to address the potential effectiveness of those mitigation measures....The point here isn't that the Co-Lead Agencies haven't adequately described the mitigation measures. It is that the Co-Lead Agencies haven't adequately evaluated their effectiveness. The SDEIS simply makes conclusory statements about the effectiveness of mitigation measures. ... MCEA emphasizes that the effectiveness of any mitigation measure that will need to last for decades or centuries after closure should be considered uncertain, and the impacts of failure analyzed.	PD01
5689	NEPA therefore suggests that an agency must attempt to quantify the risk of environmental harm from a reasonably foreseeable accident. An accident that occurs with some frequency may be called 'reasonably foreseeable'; its occurrence is a matter of probability and risk, but it is a known risk. ...The SDEIS's failure to address accident risks in this case is unique. In other industries, and in other mining projects, a probabilistic accident assessment is a routine procedure, one that is vital to reasoned and informed decisionmaking. It is, in other words, central to the very heart of NEPA. ...The environmental assessment of the PolyMet proposal – in contrast - does not contain any analysis of the probabilities of accidents occurring at the mining site or with the facility's equipment, past or future. This failure is a clear violation of NEPA.	PD22
5690	Compliance with NEPA requires an assessment of the environmental harm resulting from a tailings pond failure ... The assessment of environmental harm from accidents is an undertaking that must be completed by all federal agencies ... Any agency that fails to consider accident risks falls short of the "hard look" required by NEPA, and the failure to consider similar risks in the context of a mining operation is therefore a clear violation of NEPA.	GT15
5693	The risks of accidents can be clearly identified with specificity, and the individual risks are significant enough that a decisionmaker of reasonable prudence would certainly take them into account in making a decision on the proposed project. ... Indeed, the failure of the SDEIS to consider the environmental impacts from accidents occurring in connection with the PolyMet proposal is all the more surprising considering the risk of such accidents is so high. ...The risks of accident occurrence at the PolyMet site, clearly, can be specified and quantified with some degree of reliability. Clear case law establishes that failure to take into account the environmental impacts of the occurrence of such accidents is a violation of NEPA.	PD22
5695	an EIS, to avoid falling into the same trap as so many EISs for sulfide mines have before, must take into account the possibility that mitigation measures will not be as effective as predicted. The SDEIS for the PolyMet project fails this test. ...MCEA is not asking the co-lead agencies to consider worst-case scenarios, a requirement that no longer exists under federal rules. Rather, MCEA is asking the co-lead agencies to consider scenarios that are reasonably foreseeable and are more likely to occur because of the state and federal action under consideration.	PD01, PD22
5697	The EPA recently released an assessment of the potential impacts of a proposed mining project on the salmon ecosystems of Bristol Bay, Alaska (hereinafter "Bristol Bay Report"). ... this analysis does a thorough job of analyzing reasonably foreseeable problems at a mine site in a way that is instructive for an EIS such as this one.	WR023, WR074
5699	The SDEIS must analyze the probability and impacts of a WWTF failure, including (a) potential problems that arise during operation, resulting in discharges that do not meet water quality standards, and (b) abandonment of treatment after closure. ... wastewater treatment could fail during operations, or it could fail after operations. ... A failure after operations has a different implication because it may be that there is no longer an entity to hold responsible, and the costs will be borne by the state. Recovery of costs or damages is extremely unlikely. If the state does not or will not provide the funds to address failure after operations, the impact on the environment will be unabated.	FIN01, FIN05, WR144, WR202

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5702	The SDEIS must analyze the probability and impact of an unexpected release of untreated tailings or wastewater from the tailings basin. ... The most pertinent for PolyMet might be the North Fork scenario, in which the tailings impoundment at the Nixon Fork Mine overtopped. ... A series of unforeseen, but not unlikely, events led to the release of 34,200 gallons of tailings basin water. ... Thus, the Bristol Bay Report acknowledges the potential failure and analyzes the potential impact. In contrast, the PolyMet SDEIS does not address overtopping or accidental release from the tailings basin at all.	WR202
5703	The SDEIS must analyze the probability and impact potential aquatic toxicity impact of an accidentally release of chemicals and untreated water at the site. ...In contrast, the PolyMet SDEIS contains a list of hazardous materials used on the site but this list only covers human health impacts from chemicals. The SDEIS does not, at any point, address aquatic toxicity or impacts to aquatic life from chemicals or other constituents in the tailings basin leachate or water leaving the mine site. Nor does the SDEIS address any scenario in which additional constituents are released inadvertently, and what the potential impacts might be.	AQ22
5707	The SDEIS must analyze the probability and impact of a tailings dam failure. ...MCEA suggests that the SDEIS examine not only the probability of such a [tailings dam] failure, but also the potential impacts were it to occur, rather than ignoring potential impacts. ... A risk cannot be mitigated to zero. Tailings basin dam failures, while still low probability, are common enough, and severe enough, to warrant further discussion.	WR132
5708	The SDEIS must analyze the probability and impact of a pipeline failure at the mine site. ... It is possible, and recommended, to assign the probability of pipeline failure based on the type and length of pipeline at the site. While the probabilities are likely higher at the Bristol Bay site due to the length of pipeline, the impacts may be no less severe at the PolyMet site and should be addressed.	PD22
5710	While the SDEIS describes extensive mitigation measures to avoid such scenarios, it makes no effort to identify mitigation measures built into the project to decrease the impacts of such failures. Such mitigation measures may include, for example, capture ponds and barriers to prevent materials from pipeline breaks or tailings spills from entering nearby surface waters; a consideration of alternate locations for pipelines, as well as a list of situations in which the mine would slow or cease operation in order to avoid additional impacts. Proper contingency planning requires foresight, which is lacking in the SDEIS.	PD01, PD22
5714	The water quality model also demonstrates how heavily the SDEIS predictions rely on the engineered solutions of liner systems for the wasterock stockpiles, slurry walls and pumps around the Category 1 wasterock stockpile and tailings basin, and wastewater treatment of millions of gallons of water per day. It demonstrates, therefore, the need for the SDEIS to consider the possibility that these systems will fail or will not perform as expected, resulting in a scenario that has not been considered by the water quality model or any other part of the SDEIS	WR021, WR127, WR128, WR144, WR202
5715	the Co-Lead Agencies did not require PolyMet to consider the stochastic modeling capabilities of MODFLOW and MT3DMS (the transport module available for use with MODFLOW). PolyMet never compared any of these qualities to the most widely used publicly available model, MODFLOW. Nor does PolyMet provide any support for its statement that GoldSim is “widely used in the industry.”	WR193
5716	The Co-Lead Agencies have not demonstrated why a publicly available model, such as MODFLOW, which was used in the initial DEIS in 2009, is not adequate and more accepted to characterize the water quality and quantity at the PolyMet site. Dr. Myers ... found it not only adequate to the task, but superior in some ways because GoldSim required oversimplification in other areas, such as dispersivity (Myers Water Quality Review p. 11), the length of time steps (Myers Water Quality Review p. 11), and use of a one-dimensional flowpath (Myers Water Quality Review p. 24). Use of a publicly available model, such as MODFLOW, rather than a proprietary one, would have made review and analysis of the PolyMet model far easier for the public.	WR193

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5717	The calculated conductivity for both surficial aquifers and the bedrock is too low. The GoldSim model ignores the uncertainty in their conductivity parameters related to scale. ... PolyMet also assigned a K value based on a geometric mean that was much too low.	WR167, WR168
5718	The model assumes that the Peter Mitchell Pit is dewatering, but this is not a natural background condition. If the discharge does not continue, it may significantly change the predictions of the model. PolyMet should model a scenario without continued discharge from the Peter Mitchell Pit.	WR024
5720	The baseflow in the Partridge River is calculated incorrectly, and may be too low. The baseflow used by PolyMet in its model does not consider the variability in annual 30-day low flows, does not accurately consider the impacts of the Peter Mitchell Pit dewatering, and does not consider mine dewatering impacts on the river's baseflow.	WR003
5722	The calculated recharge rate for the entire watershed is too low. Recharge is a significant input that drives the results of the model. When calculating recharge, PolyMet used the 30-day low flow in the watershed, but the 30-day low flow in this watershed took place at a time when most water is frozen, and groundwater is depleted (Myers Water Quality Review p. 5-6). The recharge therefore does not consider recharge for the entire watershed. Dr. Myers conducted his own estimate of the recharge and found that the recharge rate is three to five times too low.	WR052, WR062, WR091
5723	The model does not consider pathways north to Yelp Creek. The groundwater contours show a divide under the proposed location of the Category 1 stockpile, suggesting that some water from this site could travel north, yet the PolyMet model does not address this possibility	WR081, WR089, WR167
5724	The PolyMet model assumes constant thickness in the surficial aquifer, while the thickness is in fact not constant. (Myers Water Quality Review p. 9). The PolyMet model also assumes constant conductivity (k) along flowpaths, which is not realistic.	WR023, WR058, WR167
5725	Dispersivity is unrealistic, with lateral dispersion greater than longitudinal dispersion, when in reality lateral and vertical dispersion are a fraction of longitudinal dispersion. This results in greater dilution of contaminants along the pathway to surface water that may be unrealistic.	WR058, WR061, WR062, WR167
5727	The model assumes that seepage that enters the wasterock stockpiles is not stored but travels through immediately. However, in reality it could be stored, resulting in larger discharges of contaminated water in some years.	WR173
5728	PolyMet's model assumes that bedrock is impervious. This is not only incorrect based on the actual pump test results (Myers Water Quality Review, p. 3), but it leads to inaccurate results. For instance, pumping into the West Pit may increase loads to groundwater through the bedrock, but PolyMet's model would not reflect it because it allows almost no discharge until the level of the water rises above the bedrock into the surficial aquifer, which is not correct	WR087
5730	PolyMet's mine plan results in over 50,000 tons of sulfate added to the East Pit by the time mining operations have ceased, most of it between years 10 and 20. Yet, the modeling shows that almost none of it ever leaves the East Pit. In fact, PolyMet's model limits the concentration of sulfate in the East Pit water at 2600 mg/l based on its "concentration caps," discussed further in Section 10 of MCEA's comments. In reality, the sulfate concentrations could be much higher. (Miller, p. 2-3). PolyMet's water model assumes that the pH of the East Pit porewater can be effectively controlled, but PolyMet fails to demonstrate this.	WR029, WR033
5731	PolyMet's model has extremely high sorption values for Cu, As, Sb and Ni that may not be justified. This is another example of a large load of constituents that does not travel to surface waters, according to PolyMet, but simply remains in the East and West Pits. However, sorption is highly depending upon other factors, such as pH, contact time, or surface area of particles. (Maest, p. 26) If the sorption factor is not correct, Cu and other constituents may reach the river in concentrations and loads much higher than predicted.	WR167

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5733	The strategy of using a Monte Carlo simulation is designed to test a range of scenarios. But the Monte Carlo simulation only works if the conceptual model is correct and the inputs represent a reasonable range. ...The limitations of PolyMet's model are significant, and cannot be corrected merely by applying the Monte Carlo approach to account for a range of inputs. The entire model must be reconsidered and rerun to address these concerns.	WR189
5734	The SDEIS does not adequately describe, let alone support, PolyMet's plan to pump and treat pore water from the backfilled East Pit during reclamation. ... Neither the SDEIS nor the reference documents make any effort to establish whether it is realistic or feasible to pump at such a high rate. Nor do they include description of significant details of this proposal, such as how PolyMet plans to return water to the East Pit to maintain saturation.	WR171, WR173
5735	First, it may not be possible to pump water at that rate from a backfilled pit due to conductivity of the pit and surrounding bedrock. ... The SDEIS must contain an analysis of whether it is even possible to pump water at that rate from the East Pit when backfilled.	WR088
5736	The entire purpose of the East Pit backfill is to achieve subaqueous disposal of the most reactive rock (Category 2, 3 and 4). When water is removed at that rate, however, the contents of the pit may not remain saturated. ... water that is added back into a backfilled pit will choose preferential flowpaths and some areas may remain unsaturated.	WR088
5737	the East Pit may not remain a sink during this time due to the pumping. Dr. Myers's model shows that loads may reach the river from the East Pit over time, even during pumping. ...MCEA experts have not identified any instance where rinsing of a pit was successfully achieved in the manner in which PolyMet proposes. (Miller p. 8). While it may reduce pollutants over time, it is highly unlikely that PolyMet will be able to achieve its goal of bringing the concentration of sulfate in the East Pit down to 250 mg/l. (Miller p. 8).	WR171, WR173
5738	The SDEIS should (1) provide evidence that pumping the East Pit is feasible; (2) take the pumping into account in its modeling to determine whether the East Pit may be discharging groundwater during pumping; (3) provide evidence, either through examples or modeling, that the rock in the East Pit can remain saturated; and (4) consider the possibility that it will not remain saturated, and make plans for addressing impacts to groundwater that would result, as well as, considering the likelihood that pumping and treating the water for a much longer period of time.	WR023, WR088, WR171
5739	Dr. Myers ... three methods yielded different results, but the three estimates confirmed that PolyMet's estimate is much too low. (Myers Groundwater Model p. 1-16). Dr. Myers concluded that the baseflow method was most accurate, but used a different approach to account for the errors in PolyMet's model	WR003, WR165
5740	For sulfate, Dr. Myers' model shows that contaminated water from the pit starts moving north toward Yelp Creek, a tributary of the Partridge River, between Years 11 and 14. (Myers Groundwater Model, p. 3-30). By Year 20, the sulfate concentration in that branch of the river may exceed 30 mg/l. (Myers Part 3, p. 3-32). On the south side of the mine site, sulfate levels are likely to exceed the water quality standard for sulfate between years 50 and 80. (Myers Groundwater Model, p. 3-34, 3-35. Concentrations at the Partridge River may be as high as 80 mg/l by Year 100.	WR089, WR167, WR171
5741	For copper, Dr. Myers's model shows that it advances more slowly than sulfate but still ultimately reaches the Partridge River before the modeling run is complete. By year 133, water quality standards for copper, which is toxic to aquatic life, will be exceeded over a significant stretch of the Partridge River south of the mine site. ...Thus, Dr. Myers' model demonstrates that over time, water quality impacts are likely even if PolyMet's engineered solutions do perform perfectly. As Dr. Myers points out, if the seepage rates from the stockpiles and other features are higher than those estimated by PolyMet, the concentrations of pollutants that reach surface water are likely to be higher, and reach surface water faster. Myers Part 3, p. 3-44....	WR171

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5742	Dr. Myers’s work at the plant site demonstrates that (1) even small defects in the slurry wall may make a significant difference; and (2) the water quality model may underestimate the volume and concentration of pollutants traveling to the Embarrass River due to its over-simplified	WR019, WR189
5743	PolyMet’s Water Modeling Uses A High Sorption Factor That Strongly Influences The Outcome Of Its Model And May Not Be Justified. PolyMet’s water quality model concludes, rather surprising, that building a copper mine on the Partridge River will lower copper concentrations in the river. ...Although some adsorption may occur, it may not be a significant factor if the water travels along a bedrock flow path or a preferential flow path in sedimentary or unconsolidated material. ...A conservative approach would be to run the model without adsorption along flowpaths.	WR010, WR011, WR012, WR014, WR058, WR071, WR087, WR090, WR099, WR167, WR168, WR169, WR179
5744	The SDEIS Likely Underestimates Impacts On Wild Rice. Recent studies completed by Drs. John Pastor and Amy Myrbo at the University of Minnesota-Duluth confirm that wild rice is unlikely to thrive at concentrations above 10 mg/l. As shown above, the SDEIS, which relies upon PolyMet’s water quality model, likely underestimates the sulfate concentrations in nearby surface waters	WR064, WR124, WR149, WR152, WR160, WR162, WR177
5745	In order to ensure that wild rice is protected in the immediate receiving waters and downstream, the SDEIS must assume that all waters surrounding the PolyMet site are wild rice waters. ...First, they [recommendations from MPCA] are based on limited information. For instance, the upper Partridge was not identified as a water used for production of wild rice based solely on aerial photos. Other designations were based on surveys performed by the company. Additional information may come to light about the presence of wild rice in the waters around the PolyMet site prior to permitting. ...Second, they are based on information collected over a limited time period. ... Simply because wild rice was not present in the one, two or three years surveyed does not mean that these are not wild rice waters, as defined by the regulation. ... Third, the definition of “waters used for the production of wild rice” is under review at MPCA. ... Even if the rule-making process is not complete at the time that this project would be permitted, it would be complete shortly thereafter and would be applicable to all waters, including the receiving waters around the PolyMet site. Thus, the SDEIS should not rely on a preliminary draft recommendation from MPCA based on incomplete knowledge. ...The SDEIS must, therefore, assume that all waters around the PolyMet site are wild rice waters.	WR152, WR154
5750	It [water model] generally assumes that there is an impermeable barrier between the surficial aquifer and the bedrock. This assumption is likely inaccurate, and may result in significant inaccuracies in the conclusions of the water model. Water may flow through the bedrock, despite the SDEIS conclusion that gouges are filled, which is based on a literature review and not an adequate fracture analysis. There may also be fracture connections between the pit and the Biwabik Formation,... The water quality model should be reworked to include the possibility of bedrock permeability and fractures.	WR010, WR011, WR012, WR014, WR071, WR087, WR090, WR099, WR168, WR169, WR179
5751	PolyMet does not have sufficient information to conclude that saline water will not be drawn into the mine site. ... PolyMet should establish a series of deep groundwater monitoring wells below the pit bottom. These wells should include continuous electrical conductivity monitoring to detect salinity changes.	WR071, WR078
5752	The PolyMet Site Would Need Far More Monitoring In Order To Implement Proposed Adaptive Water Management Strategies. While the SDEIS lacks contingency planning, as discussed in Section 6, it does include what it called adaptive management strategies. ... However, this strategy for adaptive management only works with a robust monitoring system.	WR130, WR139

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5753	MCEA’s primary concern here is that the SDEIS and supporting documentation provide scant detail on the design and implementation of this containment system, yet relies heavily upon the success of this containment system in its water modeling. In order to PolyMet to conclude in its water model that this system will capture between 93 and 99 percent of groundwater, PolyMet must commit to design specifications to ensure that it matches the assumptions of the model. Yet the SDEIS fails to commit to soil materials that be effective (Malusis Comment 1, 3), is unclear about whether a liner will be used (Malusis Comment 2), fails to commit to the level of hydraulic conductivity necessary for such a barrier to be effective (Malusis Comment 4), and does not specify whether the cutoff wall will be keyed into the bedrock, a necessary condition to prevent underseepage	WR017, WR093, WR133
5754	In addition, the Category 1 Cover slope of merely 1.0% may permit ponding and do not meet the industry standard of 2-5% slope to promote runoff and minimize ponding	PD15
5755	The SDEIS Lacks Sufficient Detail On The Tailings Basin Groundwater Containment System. ... as with the Category 1 stockpile containment system, the SDEIS fails to commit to maintaining a particular magnitude of inward gradient or head difference across the wall, or establishing a minimum depth of the key into underlying bedrock (Malusis Comment 8). Nor does the schematic suggest any key at all. These are critical design elements that the SDEIS should specify.	WR021
5756	If the bedrock is more fractured than assumed, the bedrock may have higher conductivity and slurry wall may capture less of the seepage. The SDEIS should consider this possibility.	WR019
5757	While the PolyMet 2013f (Water Management Plan – Plant) states that open trenching may be used where “subsurface obstructions” are encountered, it is nevertheless very difficult to ensure uniform conductivity , and obstructions that don’t disrupt the construction process may nevertheless disrupt the conductivity and uniformity of the slurry wall material. Second, such a method does not appear to involve any key into underlying bedrock, which means that the cutoff wall will not prevent underseepage.The in situ method would only involve digging down to bedrock, not keying into bedrock.	PD07, WR019
5758	the SDEIS and supporting documentation lack details necessary to ensure that the bentonite-amended barriers will operate as designed. In particular, it is unlikely that PolyMet proposes to add enough bentonite to create a uniform barrier. (Malusis Comment 12). In addition, it is unclear that the bentonite layers can stay saturated over time as required to remain effective. ... In addition, these appear to be novel strategies for limiting oxidation at a tailings basin. (Malusis Comment 16). The SDEIS should discuss whether these strategies have been deployed elsewhere, and whether PolyMet or DNR has information about the success of other efforts.	PD07
5759	The materials contained within the HRF may be among the most dangerous on the site. Yet the discussion of potential environmental impacts from the HRF earns four sentences in the SDEIS, culminating with this dismissive statement: ... The SDEIS and supporting materials do not sufficiently address settling and consolidation of materials under the HRF ... PolyMet should commit to rigorous construction quality assurance procedures to increase the likelihood that its optimistic assumptions are put into practice	PD19

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5760	Even though these liners are temporary, rather than permanent, it is extremely important that they function as proposed. ... as with other structures, the SDEIS makes highly optimistic assumptions about the performance of these liners. PolyMet should commit to rigorous construction quality assurance procedures, or PolyMet's assumptions about the very low leakage rate may vastly underestimate true leakage through these [stockpile] liners ... In addition, these liners are placed on soil, and waste rock is placed on top. Waste rock is irregular in shape and may easily puncture the liner. The SDEIS should describe procedures that will place restrictions on the waste rock to decrease the chances of defects in the liner after it is laid down ... Finally, the recommended hydraulic conductivity of 10-6 should be prescribed for both the Category 4 and Category 2/3 liner. There is no justification for a higher conductivity around the Category 2/3 stockpile	GT10
5761	Therefore, it is insufficient for the SDEIS to describe merely how these systems will perform at installation, and assume that this will remain true for the decades or centuries following closure. Rather, the SDEIS must analyze the longevity of these installations, as well as the maintenance required to achieve that longevity. ... Therefore, the SDEIS should provide both the expected longevity of all systems described herein ... as well as the maintenance activities required to achieve that longevity. Finally, the SDEIS should address the environmental impacts that may arise if these systems do not perform as predicted.	PD22
5762	While reverse osmosis (RO) treatment has been successfully implemented in many locations, ... this system must be closely monitored for potential problems due to scale and longevity.	WR143
5763	Dr. Miller points out that the Category 1 Stockpile will likely generate and release sulfates and potentially sulfuric acid for timeframes well beyond our limited experience. ... The SDEIS should acknowledge that treatment will most likely be required for long after the 200-500 year time frame described in the SDEIS.	WR035
5764	The SDEIS must provide a solid basis for its assumption that these sulfate concentrations are achievable without RO, such as a pilot project or successful operations at another facility. The SDEIS should consider the possibility that sulfate concentrations could be quite high in the influent, up to 2000-3000 mg/l.	WR023, WR137, WR143, WR147
5765	West Pit Lake water quality may be much worse than predicted. The SDEIS must consider this possibility in its analysis. ... If sulfate levels are much higher than predicted, the result will be that treatment will be required for much longer than predicted. Groundwater discharge could also be considerably more contaminated.	WR035, WR038, WR173
5766	The SDEIS should analyze the experience of RO at the Eagle Mine, and determine whether there are lessons to be learned from that could improve the wastewater treatment strategy for the NorthMet project. ...The SDEIS should (1) analyze the problems at the Eagle Mine to determine whether there are lessons to be learned from its experience; and (2) take into account the possibility that the WWTP will not meet water quality targets for unforeseen reasons.	WR023, WR143
5767	PolyMet has not taken a sufficient number of samples to adequately characterize the wasterock (Maest, p. 10). PolyMet also performed almost no acid-based accounting (ABA) analyses, which would provide additional information about whether the rock samples are acid-forming.	WR025
5768	PolyMet only modeled average conditions, but its model does not consider scenarios in which the concentrations of pollution leaching from the mine features are significantly higher than the average.	WR026, WR060, WR126

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5769	PolyMet has taken a convoluted and confusing approach to its geochemistry calculations... PolyMet must (1) provide a complete explanation for its approach, for instance by choosing a constituent and explaining their entire process for calculating geochemistry inputs; and (2) provide a justification for its convoluted and seemingly inconsistent approach. ...MCEA recommends that the entire geochemistry approach be re-examined and more fully explained before the FEIS.	WR025
5770	The fault lies squarely with the Co-Lead Agencies, who should have included all geochemistry data with the SDEIS and reference documents. MCEA should not have been forced to make multiple requests to obtain multiple datasets that may, or may not, constitute the entire universe of relevant data. The Co-Lead Agencies' approach was not transparent, as is required by federal law.	NEPA07
5771	In response to MCEA's request for additional time to evaluate the geochemistry data, some of which was not received until less than 10 days from the comment deadline, the Co-Lead-Agency heads responded that the 90 comment period already reflects their "recognition that the SDEIS is a complex document," but that the "comment period is not designed to provide for extensive independent analyses of the project's technical documents in addition to the SDEIS." ...The Co-Agencies' characterization of the purpose of the comment period is not correct, and its denial of extra time, which would have cost the Co-Lead Agencies little or nothing, was not justified. ...The notion that the comment period is for review of the SDEIS alone, and that the technical documents referenced in the SDEIS are not part of that review, is absurd. The SDEIS and the citations upon which it relies are inseparable. ...MCEA should not have had to spend six weeks of the comment period requesting that data, which was omitted from the SDEIS documents and instead relegated to obscure footnotes and stored in an incomplete and hard-to-use fashion.	NEPA07
5772	First, the number of samples in the waste characterization program is inadequate for the volume of wastes predicted to result from mining. (Maest, p. 10). Dr. Maest reports that this among the fewest samples she has seen among approximately 200 mining EISs, and does not conform with the recommendations of the GARD Guide.	WR025
5773	Second, assumptions about lack of acid generation or delay in acid generation and lack of substantially metal/contaminant leaching are poorly substantiated and conflict with actual results.No traditional acid-based accounting (ABA) analyses was conducted, and almost all ABA results may well have shown that all samples were potentially acid-generating. ... As a result, the SDEIS cannot rule out the possibility that all wastes, including Category 1 wasterock, may be acid-generating, even within the 20 years of the mining operation.	WR025
5774	Third, the SDEIS does not address the collection and treatment of dewatering around the pits during mining. ... PolyMet's wastewater treatment strategy does not appear to treat the process water for nitrate and ammonium.The SDEIS should consider the possibility that dewatering will need to take place, adding water to the total to be treated. It should also consider the possibility that ammonium and nitrate will be present, and will need to be removed from the process water.	WR013
5775	Fourth, releases from the Category 1 stockpile would likely be more polluted than predicted because PolyMet will not be able to sort the wasterock by category without error.	WR134, WR173
5776	Fifth, the modeling approach ignores the results of field and lab tests. PolyMet ignores circumstances that could result in acidic conditions and/or significant metals leaching from the mine features and stockpiles by eliminating test results with pH values below 6 from consideration	WR025
5777	Sixth, PolyMet negates the advantage of the Monte Carlo approach by using a high adsorption factor that prevents contaminants from moving along flowpaths.	WR167
5778	the SDEIS may have overestimated the time before the onset of acidic conditions in the Category 2/3 and 4 wasterock stockpiles, and ore.	WR071

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5779	The SDEIS Should Consider Other Forms Of Construction Than Upstream Construction, Which Poses The Highest Risk For Seismic And Static Failure Of Tailings Dams.PolyMet likely chose this this method because it is the least-expensive dam construction approach. But it is susceptible to failure during earthquakes. PolyMet should consider other methods of dam construction. (	GT01
5780	Dr. Chambers suggests several ways in which the geotechnical analysis could be improved, including:(1) Use of a Maximum Credible Earthquake scenario, as opposed to a 2,475-year return seismic event;(2) An overly generous assumption about the mean distance to the nearfield earthquake;(3) The lack of dynamic modeling in the evaluation of dam stability. (Chambers p. 14-15).Similarly, the hydrometallurgical residue facility (HRF) should be placed on compacted fill, rather than original soil and taconite waste.	GT05
5781	the SDEIS fails to address the safe transport and disposal of the materials recovered from the process/contact water at the site as part of the wastewater treatment process. ... Thus, at a minimum, for the first few years of operation and all of reclamation in to the “long term,” the filtered sludge will need to go “offsite.” The AWMP also states that the residual solids from the WWTF will be sent to “offsite disposal” during the “long term.” ...The transportation and disposal of these waste streams is a direct effect of the proposed action and must be analyzed in the SDEIS.	WR145
5782	None of these waste streams – the filtered sludge from the WWTF, the residual solids from the WWTF, the residual solids from the WWTP, or the pore water from the HRF – receive any attention in the SDEIS or the reference documents. ... The SDEIS should provide a profile of these [WWTF, WWTP, HRF] waste streams – what constituents they contain, in what concentrations, and the dangers those constituents pose to the environment or human health.	WR068, WR145, WR146
5783	Both transportation and disposal involve risks that must be analyzed in the SDEIS... Disposal risks include ground and surface water contamination from a landfill or treatment facility. The risks would depend, in part, on the location of the facility, which is why the SDEIS should identify potential options with specificity....there remains the possibility that there is no facility in the state that would accept this [waste] material. If that is the case, PolyMet would be forced to come up with other options that may significantly increase costs, not mention increased environmental and human health risks if the other options involve longer shipping times, for instance.	WR145
5784	The SDEIS fails to examine risks associated with shipping the reject concentrate from the WWTP to the WWTF via “rail tank car.”...There is no analysis of the contaminants in the reject concentrate, spills that would occur inevitably as a result of transferring the material to and from the rail tank car, more catastrophic spills that could occur accidentally, or the impacts of those spills on human health, groundwater, surface water, vegetation, or other natural resources. These are direct effects of the proposed action and must be included in the SDEIS.	HAZ01, WR145
5785	The SDEIS must analyze the “fate” of each of these chemicals [in Table 5.2.13-1] – how they are used, and when and how they leave the site, if they do, in what volumes or concentrations, and the risks they may pose.	HAZ01
5786	nowhere in the entire Environmental Consequences chapter are the environmental consequences of the loss of wetlands that may be aquatic resources of national importance (or any quality of wetlands) described. This is a significant omission.	WET19
5787	the SDEIS contains no discussion on the significance of the loss of wetland functions and acres. This determination should be based both the context and intensity of the impact to wetlands.	WET07

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5788	Use of a conceptual ecological model is a well-accepted, scientifically defensible method that can also be used to develop a long-term monitoring program to assess indirect impacts to wetlands. ... This type of analysis, supported by the research already completed on the potential direct and indirect wetland impacts and new, more detailed analysis would improve the usefulness of the information presented in the SDEIS and would be consistent with the requirements of both NEPA and MEPA. Documenting the environmental effects in both a graphic and narrative format, methods central to conceptual ecological model, would improve the communication of the science and analysis and would ensure that readers are aware of the "issues that are truly significant to the actions in question." As the SDEIS is written now, it would be impossible for a member of the public to review the document and receive an answer to the question: what are the environmental effects of the loss of 900 acres of wetlands to the St. Louis River watershed?	WET02, WET03
5789	If the Co-Lead-Agencies are relying on mitigation to reduce the environmental consequences of the permanent loss of wetlands, it is not clear in the SDEIS how that proposed mitigation sites would replace loss of wetland acreage and function within the St. Louis River watershed (especially considering the majority of the replacement would occur outside the watershed). Unless it is clear what functional losses at the NorthMet site and to the greater St. Louis River watershed... Simply put, without knowing the impacts to the affected environment resulting from the direct loss of over 900 acres of wetlands and the indirect loss of thousands of acres of wetlands, no one can ensure the proposed replacement will mitigate the effects.	WET01, WET03
5790	Of the three wetland mitigation site proposed by PolyMet, two are located out of the project's watershed and would fail to provide in-watershed ecosystem functions such as terrestrial and aquatic habitat, water quality and water storage.	WET03
5791	A total of 56% (509.1 acres) of the proposed direct wetland impacts would occur to coniferous bog wetlands, yet no in-kind mitigation for the loss of these unique wetland plant communities is proposed.	WET05
5795	If the primary target for the Zim site is a forested wetland community, the statement that "[t]he majority of the credits would be in-kind mitigation and nearly one-half of the credits would be from within the NorthMet Project area" is false. This information must be corrected in the SDEIS and it should be clear to the public that the target wetland plant community at the Zim site is not coniferous bog but forested wetland. ... If bog wetland restoration is determined to be impracticable at the Zim site, the SDEIS should clearly state that the coniferous bog wetland impacts at the NorthMet site would NOT be replaced in kind, and the replacement ratio should be adjusted accordingly.	WET04
5798	MCEA requests that the replacement ratio for the mitigation of the loss of high quality wetlands, and difficult to replace forested and bog wetland plant communities be set at a minimum of 2:1 (and not reduced below 2:1) to account for the high potential for temporal and functional loss of those difficult to replace wetland plant communities that are high functioning wetland plant communities.	WET04
5799	MCEA asks the Lead Agencies to require PolyMet to continue to investigate in-watershed mitigation options for mitigation opportunities that would almost certainly be needed to mitigate for the loss of wetland functions that are likely to occur as a result of indirect effects to wetlands.	WET03
5800	Since no wetland bank is being developed by PolyMet, no "excess wetland mitigation credits" would be available. Permittee responsible mitigation sites do not generate credits. The sites serve only to produce the compensatory mitigation required by a condition of a permit or wetland replacement plan.	WET04
5802	In-watershed wetland mitigation opportunities for the indirect wetland effects should be identified and proposed in the final EIS. If additional large scale mitigation sites cannot be located for the mitigation of the direct effects of the potential NorthMet project, additional actions such as wildlife corridor preservation and water quality projects within the St. Louis River watershed should be considered to off-set the adverse and significant loss of in-watershed wetland functions.	WET01, WET03

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5804	Based on PolyMet’s unknown success with rehabilitating bog and forested wetland a community (or any type of permittee responsible mitigation) necessitates the need for long-term financial assurance to provide a level of certainty that wetland mitigation will be provided and accomplished as proposed in their wetland mitigation plans. The requirement for financial assurance would be consistent with both state and federal rules.	FIN11
5805	In order to ensure that enough funds are available to improve an unsuccessful wetland mitigation project, Co-Lead-Agencies should require a financial assurance that covers remediation costs at the three identified wetland mitigation sites and any additional sites that are added, including: costs for surveys; project re-design and engineering, site construction and planting, monitoring and maintenance, remedial work and other contingencies (e.g. extreme weather or berm failure), and legal and administrative tasks. This amount should be based on submitted bids by contractors and consultants capable of doing the above tasks and include an adjustment for inflation and increasing costs. ... Another alternative for costing a financial assurance would be to use credit prices charged by mitigation banks for similar types of compensation in the same watershed, including an adjustment for inflation. The DNR and Corps should ensure that the money remains set aside during the time that the project may be determined unsuccessful. To do this, the bulk of the funds should only be released after all wetland mitigation performance milestones are met.	FIN05, FIN08, FIN11
5807	MCEA believes that many of the bog wetlands may have been misclassified. The DNR Field Guide to the Native Plant Communities of Northeastern Minnesota, which is used by DNR biological survey staff to classify wetlands in northeastern Minnesota, separates bogs from fens by the absence of fen indicator species. Further, scientific literature distinguishes ombrotrophic bogs from minerotrophic fens on the presence or absence of fen indicator species and different ranges in surface water chemistry. Neither of these well accepted and in one case, agency developed, approaches were used to distinguish between ombrotrophic and minerotrophic bogs. MCEA requests that the bog wetlands within the affect environment be re-evaluated using the methods identified in the report “Supplemental Draft Environmental Impact Statement March 2014 Report on wetland components of the EIS” submitted by Paul Glaser...MCEA also requests that if this re-evaluation results in changes in the classification of bogs, the indirect effects analysis be rerun.	WET09
5809	The SDEIS should use the same classification method used by the County Biological Survey scientists and peer reviewed indicators of ombrotrophic bogs in classifying wetland plant communities. Our concerns and recommendations on this topic are addressed in the attached “Supplemental Draft Environmental Impact Statement March 2014 Report on wetland components of the EIS” by Paul Glaser,	WET21
5810	The site specific wetland plant community data collected is very minimal.... Since very little baseline hydrology and vegetation monitoring has occurred, future indirect wetland impacts to misidentified bogs would go unnoticed and unmitigated. ...Relying on a two-day site visit of the bog wetlands and on the data collected in to support wetland delineation will not provide the detail needed to track changes in site-specific wetland plant communities and hydrology. Lack of vegetative plot data across the areas where indirect wetland impacts are possible make it impossible to scientifically track changes in the plant communities. Reliance on wetland vegetation data collected for the purposes of a wetland delineation is a unreliable and non-repeatable method for detecting indirect effects to wetlands. The susceptibility of correctly identified ombrotrophic bogs to indirect impacts is also underrepresented and failure to monitor these sites for indirect effects, if the project is permitted, would likely result in significant unidentified and unmitigated impacts to high quality wetlands.	WET09

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5814	A comprehensive monitoring plan for all the wetlands within the affected environment should also be developed. ...Since many of the conclusions made in the SDEIS regarding indirect wetland impacts were made without comprehensive site specific data, PolyMet should be required to monitor all wetlands, including ombrotrophic bogs, for changes in hydrology and wetland plant diversity, assemblage and peat depth. This should be done using a scientifically accepted and easily repeatable method such as relevé plots or randomized grid of sample points. No monitoring of ombrotrophic wetlands is proposed. This is a significant oversight. ... MCEA agrees that if the NorthMet project is permitted, monitoring of hydrology, water chemistry and vegetation would be the best method for documenting change. However, identifying change without sufficient baseline data or comprehensive monitoring data is impossible.	WET02, WET22
5816	The SDEIS points to the Section 404 permit application for detail on how indirect wetland impacts would be determined and when mitigation would occur, yet the information in the 404 permit application is extremely limited and does not provide assurance that significant impacts to wetlands will be mitigated in a timely manner.	COE02
5818	the indirect monitoring plan should require vegetation plot observations every other growing season by a botanist with experience in identifying peatland plants. Reporting to a regulatory agency should also be required within four months of the observed change, to allow for timely mitigative actions (adaptive management or wetland mitigation). All wetland mitigation should occur within 1 growing season of the observed change. Monitoring should continue for the life of the mine at all locations, even if indirect effects have been mitigated to ensure that the completed mitigation projects offset the eventual loss of wetland function and area. The results of this comprehensive long-term monitoring of indirect impacts should be shared with the public to allow for the development of improved datasets and information supporting indirect impact analyses at mine sites surrounded by wetland resources.	WET02, WET22
5820	The 404 permit application has an inadequately describes at what point regulatory agencies will determine that an indirect impact has occurred. ...how, once an indirect effect is observed at a monitoring point, will indirect impacts to wetlands beyond that monitoring point will be determined? If no baseline data exists on wetlands further out from the observed indirect exists, how would changes be observed and mitigation required?	COE02
5822	Second, only three reference wetlands are proposed for the seven distinct wetland plant communities that would be impacted as a result of the NorthMet project. ... It is not stated in the SDEIS, wetlands data package (PolyMet 2013q) or the 404 permit application what plant communities the reference wetlands are. ... Neither the SDEIS nor the 404 permit application provides an explanation why the reverence sites chosen would accurately represent the range of wetlands that may be indirectly impacted by the NorthMet project. In addition, two of the three reference wetlands will not have background or pre-project data to compare the post-project hydrologic monitoring against.... MCEA requests that additional reference sites be located.	COE02
5823	No mention on the potential loss of a specific quality or type of wetland is made and how that may affect the needed wetland mitigation. The SDEIS should clearly state what quality of wetlands may be affected by indirect effects and how observed loss of function or quality will be mitigated, taking into account that many of the wetlands susceptible to indirect impacts are difficult to replace wetland plant communities.	WET01, WET05

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5826	The SDEIS contains inadequate analysis of the cumulative effects of wetland loss. The outdated list of reasonably foreseeable projects does not account for projects which have been proposed, planned or permitted in the last four years. ... Further, no mining or road improvement projects that would impact wetlands were identified. Northshore Mining Company has proposed to impact wetlands south of their existing pit. This information can be found in their existing state Permit to Mine. Those wetland impacts have not been permitted and should be included in the cumulative impacts analysis. upgrades to roads not within the mine boundary would be necessary to accommodate additional traffic. Yet no projects have been identified in the cumulative impacts analysis, even though it is highly likely that St. Louis County and local road authorities have identified the need and extent of future road upgrades and realignments. MCEA believes that information on reasonably foreseeable projects should have been requested and or updated between the completion of the Draft EIS (DEIS) and the SDEIS. MECA requests that the cumulative effects analysis for wetlands be updated to address those projects which may have been developed since the completion of the DEIS.	WET18
5828	<font color="#1F497D">The SDEIS fails to take a hard look at the potential socioeconomic consequences of the NorthMet Project by focusing exclusively on the beneficial effects of the Project by focusing on jobs and tax revenue. Because the SDEIS fails to recognize potentially significant negative impacts on socioeconomics from the Project beyond a potential housing shortage, the SDEIS does not identify any mitigation measures which would address potential negative socioeconomic impacts from the Project. The failure of the SDEIS to analyze the potential negative socioeconomic impacts associated with the Project is a serious shortcoming of the SDEIS.</font>	SO04
5831	the SDEIS fails to recognize the socioeconomic risks associated with the impact on other employment sectors as a result of the environmental degradation and destruction accompanying the Project. Specifically, the NorthMet project and the reasonably foreseeable development of additional sulfide mines in the region creates a significant risk to sustainable economies in Northeast Minnesota that rely on wilderness, recreational and access to unspoiled public lands. In addition, the lifestyle and economies of tribal communities, from wild rice harvesting and reliance on other cultural and natural resources, are also threatened as a result of the NorthMet Project and reasonably foreseeable sulfide mining activity in the region.	SO04
5834	The SDEIS also fails to recognize the socioeconomic benefit associated with tourism from maintaining wildlife habitat and wildlife corridors, which ensure that populations of endangered species are maintained or increased. ... While many of these jobs may not be directly affected by mining operations, the SDEIS makes no effort to determine whether any of these jobs or associated revenue would be affected.	SO02
5841	the SDEIS for the Project cannot rely upon the operation of the RES to accomplish state policy on GHG emissions...the SDEIS fails to analyze a green power alternative under which the Project would run on low- or no-carbon electricity, thereby minimizing the Project's biggest single source of emissions. The SDEIS does discuss methods of increasing efficiency of vehicles and equipment on site, but none that address switching from coal to green power. Coal-fired electricity is the only form of generation that is mentioned. Consequently, the SDEIS ignores an opportunity to use widely available, existing technology to reduce or eliminate the biggest source of GHG emissions, simply by changing the way the power used by the Project is produced....The failure to analyze and discuss a wind energy option is unfortunate,...Moreover, even the assertion that the Project must use Minnesota Power is not entirely correct.	PD39
5843	The SDEIS must analyze, as an indirect impact, whether increased demand will change Minnesota Power's baseload, and prolong the life of one of its coal plants.	PD39

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5929	This analysis establishes that the increased copper smelting caused by the removal of copper ore at the PolyMet mine is a reasonably foreseeable impact that should be addressed in the SDEIS. ... Copper smelting is clearly certain to occur; for without it the copper precipitate is worthless as an industrial commodity....The smelting of PolyMet’s copper precipitate is therefore also an incremental impact, in that the smelting will continue to occur even if PolyMet’s mine is rejected, but the addition of their ore will cause an incremental increase in the amount of precipitate being smelted overall.	PD33
5930	the Co-Lead Agencies can and must refine this analysis by requiring PolyMet or Glencore to reveal known or likely locations where the copper precipitate from the PolyMet mine would be smelted.	PD33
5931	Although the SDEIS does not specify where the copper concentrates will go, the issue of adverse environmental effects from smelting the Polymet output is a matter of ‘how much,’ not ‘if.’ The environmental difference between two smelters, in other words, will be a matter of quantity, not quality....the environmental impacts of smelting are well-known and must be addressed in the SDEIS.	PD33
5932	The SDEIS must analyze potential air emission impacts from smelting. The type of smelting that would take place after Glencore takes possession of the ore concentrate produced at the NorthMet site is a significant source of air pollutants, including sulfur dioxide, particulate matter, mercury and dioxins....These emissions have a significant social, economic, and environmental cost.	AIR10
5933	The SDEIS must analyze the impacts of water and soil contamination from copper smelting...Wastewater from the smelting process typically contains toxic metal compounds, oil and organic material. ... There is also considerable evidence that leaching from the slag waste piles at smelting facilities may “extract and concentrate soluble radioactive materials” that can then be introduced into drinking water supplies.	WR055
5934	the SDEIS should nevertheless analyze the potential impacts of additional transportation of the copper and nickel concentrates to smelters. ... The SDEIS should address potential transportation modes (rail, truck, freighter) as well as potential routes over land and water....At a minimum, where information about a potential environmental impact is incomplete and cannot be obtained, the RGU must include, by law, the following information in the EIS: A. A statement that the information is incomplete or unavailable and a brief explanation of why it is lacking; B. An explanation of the relevance of the lacking information to evaluation of potentially significant environmental impacts and their mitigation and to a reasoned choice among alternatives; C. A brief summary of existing credible scientific evidence that is relevant to evaluating the potential significant environmental impacts; and D. The RGU’s evaluation of such impacts from the project and its alternatives based upon theoretical approaches or research methods generally accepted in the scientific community.	PD33, PD37
5935	the project is proposed to impact over 8,000 acres of designated critical habitat for the Canada lynx, habitat that contains features essential to the conservation of a threatened species. In spite of these facts, the SDEIS does not accurately disclose the potential effects to the Canada lynx and the significance of those effects to the survival of the species.	WI01, WI02
5936	Using the 2009 Minnesota population estimate of 200 Canada lynx, 20 individual lynx located within 18 square miles of the project site equates to 10% of all the lynx in the state. This is a significant number of Canada lynx concentrated in an 18 square mile area and should not be considered “low.”	WI01
5937	the EIS should provide a table and map displaying the locations of known and reported lynx tracks, sightings, scat, dens and deaths (incidental or other) between 2000-2014 within a 58 square mile area (the home territory of a male lynx) of the NorthMet site. The data used should be collected from from multiple sources including: the Natural Resources Research Institute’s Canada lynx project, USFWS, USFS, National Park Service, DNR, PolyMet and Tribes.	WI01

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<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5938	the NorthMet project would generate 1,734.9 miles of vehicle traffic between the mine and plant sites daily. It is unclear how that information equates the number of vehicles and trains along the transportation corridor and the number of trips those modes of transportation would take. The type of vehicle also makes a difference in the likelihood of a driver seeing and avoiding a lynx on the roadway or tracks, yet the traffic information is presented in tons. It would make sense to also present traffic information as the projected numbers of passenger vehicles, fuel trucks, haul trucks, etc that would travel the transportation corridor daily. There is also no description if there are times of day that when traffic would be more concentrated.	WI01
5939	The SDEIS Does Not Provide Mitigation Commitments That Could Reduce Significant And Adverse Effects On Canada Lynx That Would Occur As A Result Of The NorthMet Project. Due to the size of mining trucks, it is doubtful they will see, or be able to stop in time if a lynx crosses the road in front of the truck. The SDEIS states "there is the potential for incidental take as a result of the of vehicle collisions with lynx," there yet there is no discussion in the on possible mitigative actions to avoid the harm, harassment or take of a lynx that could occur as a result of the NorthMet project. This is not consistent with the requirements of both NEPA and MEPA.... MCEA requests that the SDEIS more accurately disclose the potential environmental impacts to the Canada lynx that could occur as a result of the proposed NorthMet project, including "[m]eans to mitigate adverse environmental impacts....MCEA believes that actions that may mitigate the potential adverse impact to the lynx should be identified, thoroughly discussed and included in the NorthMet project's design	WI01
5940	In many instances, the information presented in the DBA differs from the information presented in the SDEIS. MCEA requests that these discrepancies be corrected and the potential effects to the Canada lynx should be accurately, clearly and thoroughly disclosed. At a bare minimum, the information presented in the SDEIS should not contradict information presented in a final BA or potentially, the final Biological Opinion prepared by the US Fish and Wildlife Service (USFWS).	WI01, WI11
5941	The draft BA states "... ENSR (2006) concluded that at least three lynx resided near the Mine Site." However, the SDEIS states that "...no lynx were identified during the ENSR 2006 surveys."	WI01, WI11
5942	the SDIES makes incorrect conclusions on the research completed by Dr. Ron Moen and Lauren Terwilliger at the Center for Water and the Environment at the University of Minnesota- Duluth. Although it is correct that lynx do not rely on roads for travel, lynx use of roads or proximity to roads is well documented.	WI01
5943	MCEA believes that the risk factors of lynx take discussed in the SDEIS should match the factors addressed in the DEA [should be DBA - Draft Biological Assessment] and that the analysis on the potential effects to the Canada lynx should summarize the same information that is presented in the DEA.	WI01, WI11
5944	MCEA requests that a new wildlife corridor study be completed to update the outdated 2006 or 2009 corridor studies. This re-evaluation the wildlife corridors should also address each corridors value and functionality and potential impacts in the foreseeable future (e.g. transportation projects or mining related expansions). Without this new analysis, the Co-Lead-Agencies would be relying on outdated data to determine the effects to Canada lynx and other species that rely on wildlife corridors to access habitat, prey, mates and refugia between features north and south of the Iron Range. These comments also apply to the "Wildlife Corridors" section of Chapter 6, Cumulative Effects which relied on out-of-date and incomplete reasonably foreseeable projects identification that has not been updated since 2009.	WI03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
5945	the SDEIS contains inadequate analysis of the cumulative effects of habitat fragmentation on Canada lynx. The outdated wildlife corridor analysis was the only source of reasonably foreseeable projects and did not account for planned transportation projects under the jurisdiction of the St. Louis County Highway Department, the Minnesota Department of Transportation, the Forest Service or cities within the scope of review....MCEA requests that the cumulative effects analysis for the Canada lynx and other wildlife species be updated to address those projects which have been proposed within the last five years. Sources of data MCEA would expect to be consulted include: state and federal agencies, Tribes, local government, counties, mining companies, local zoning and water plans, economic development plans and permitting records.	WI02, WI08
5946	PolyMet's Future Expansion Plans Are A Phased And Connected Action. PolyMet's plans for this site are not limited to the 20-year proposal included in the SDEIS....A financial report commissioned by PolyMet and based on information provided by PolyMet has predicted that PolyMet will submit permit applications for expansion within six months after permitting....DNR may not simply ignore this evidence merely because PolyMet's proposal to DNR is for a 20-year project. Perhaps PolyMet has assured the Co-Lead Agencies that they have no plans for expansion beyond a 20-year mine, but PolyMet appears to be telling its investors otherwise. It is an error for the agency to accept the project proposer's statements without independent evaluation.	PD30
5947	the SDEIS must evaluate whether the wetlands restoration projects, which are highly undeveloped at this time, will require 404 permits. If they do, they must be included in this SDEIS as connected actions.	COE10
5948	the SDEIS inexplicably provides a cumulative impact analysis for the NorthMet project (Ch. 6.2) and then separate cumulative impact analysis for the Land Exchange (Ch. 6.3). The segregation results in an inadequate cumulative impact analysis because it does not do what NEPA and MEPA require...The failure to look at the connected actions in one cumulative impact analysis is clearly contrary to the purpose of NEPA/MEPA's requirement for an assessment of the cumulative impact on resources.	CU15
5949	SDEIS must consider all other "actions" not just "projects." The SDEIS has to consider the direct and indirect effects of past, current, and reasonably foreseeable future actions in its cumulative impacts analysis...the SDEIS appears to limit its consideration of effects from other "actions" only to effects from "projects." Table 6.2-1 contains a list of projects. The SDEIS does not explain why it has been so limited.	CU07
5950	Other sulfide mining actions have been inappropriately excluded. The list of projects considered excludes all other activities related to sulfide mining, both those activities that are current and on-going and those that are reasonably foreseeable. The failure of the SDEIS to provide a thorough consideration of such activities is a major inadequacy.	CU02
5951	The cumulative impacts analysis makes no mention of direct and indirect effects from widespread exploration and prospecting activities across the relevant area. ... The direct and indirect effects of prospecting were evaluated in an EIS conducted by the Forest Service. At a minimum, the environmental effects identified in that EIS need to be incorporated into the SDEIS's cumulative impacts analysis. ... The State has also issued leases for sulfide mining exploration and prospecting. ... Clearly there are direct and indirect effects from the exploration resulting from DNR's lease sale and those effects must be evaluated as part of the cumulative effects for this SDEIS.	CU02
5952	Polymet's proposal is the first in what will be a long line of proposals to come, should it be permitted. The failure to address the precedent setting nature of this decision has led to an inadequate EIS. The impacts of multiple other proposals will have on Minnesota's natural resources are an indirect effect of the decision to allow Polymet's proposal to move forward. The Agencies have not explained why this indirect impact – one that is obvious to anyone engaged in this process – has been completely ignored.	CU04

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5953	In addition, the SDEIS identifies but then excludes from its analysis other sulfide mining projects that are reasonably foreseeable, including the Twin Metals project, and the Teck Mesaba project. Exclusion of these other projects makes the cumulative impacts analysis in the SDEIS inadequate....At a minimum the Agencies have not explained why such projects are not reasonably foreseeable. Even if specific project details are not yet available, sufficient information shows that the projects are reasonably foreseeable. Plans do not have to be so far along as to “constitute actual proposals” to conclude that a project under current consideration is a “reasonably foreseeable future action.”	CU02
5955	Foth Engineering, Barr Engineering, And Other PolyMet Consultants Must Execute A Disclosure Statement Specifying That They Have No Financial Or Other Interest In The Outcome Of The Project. These statements should be reproduced in the SDEIS or made readily available to the public....Reprinting statements from private consultants without verification is an abdication of the Co-Lead Agencies’ duties in any event.	NEPA18
5956	The Purpose and Need Statement does not reflect DNR’s statutory and regulatory responsibilities. ... MDNR’s Purpose and Need statement should include its statutory mandate to regulate mining operations and control adverse environmental effects. ... MDNR is tasked with promoting mineral extraction and exploration to diversify Minnesota’s mineral economy, not to fulfill global demand.	NEPA02
5957	MDNR [and USACE] provides no support for its proposed Purpose and Need Statement, lending support to the No Action Alternative...to show that the extraction is necessary, MDNR [and USACE] must, at a minimum, make a showing that such extraction is necessary. Nowhere does MDNR [and USACE] demonstrate that there is a domestic or global shortage of copper, nickel or other metals to be produced at this mine.	NEPA02
5958	An overly narrow Purpose and Need Statement does not meet the requirements of NEPA and MEPA...it is a violation of NEPA to define the agency’s purpose and need in unreasonably narrow terms. If the agency constricts the definition of the project’s purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role. Nor can the agency satisfy the Act.	NEPA01
5959	Even within MDNR’s [and USACE’s] inappropriately narrow Purpose and Need, MDNR [and USACE] should have considered other more sustainable means of meeting that need. MDNR [and USACE] should have considered other alternative means of achieving the goal of meeting domestic and global demand. In particular, the SDEIS should consider whether (1) increased recycling of copper and other metals and (2) increased conservation efforts would also meet the need defined by the agency for this project.	NEPA01
5961	The SDEIS should analyze the human health impacts of decreased water quality in Colby Lake....The SDEIS states that as a result of the NorthMet project, increases in several contaminants would increase for Colby Lake. ... Arsenic is a carcinogen, and it may well be that increased arsenic exposure, even within the water quality standard, may have an impact on the health of residents of Hoyt Lakes. The same may be true of the other constituents that are predicted to increase in the water body. Any human health impacts must be put into context of the potential problems with the mine	HU01
5962	While the SDEIS occasionally mentions that there are human health concerns related to air emissions, it contains no rigorous, comprehensive analysis of human health impacts. Nor may the SDEIS ignore potential impacts to human health by relying on mitigation measures, as discussed in Section 6. A Health Impact Assessment or similar approach is required under NEPA and would greatly improve the analysis in the SDEIS.	HU01
7304	In the case of PolyMet, the criteria for achieving financial assurance and the instruments available are limited. We believe only one option, U.S. government Treasury securities held within a trust fund under the complete control of the MDNR, meets the objectives outlined in Minnesota’s Rules.	FIN08

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7306	U.S. bonds carry less risk than any other security issued because the full faith and credit of the government stands behind these securities and, hence, the full taxing power of the U.S. No other security issued in the U.S. can make this same claim. No security issued by any bank or insurance company has the taxing authority of the U.S. government supporting its repayment. ... If the intent of Minnesota Rules (Chapter 6132) is to provide sufficient funds with minimal investment risk to meet PolyMet’s estimated closure and reclamation costs up to 200 years into the future, only U.S. government bonds will meet the definition of a risk-free investment. No other issuer will protect Minnesota taxpayers from PolyMet’s environmental risk.	FIN03, FIN08
7308	Banks and insurance companies do not meet the definition of risk-free and are inefficient from an economic perspective. The only remaining financial instrument option is a bankruptcy-proof trust dedicated to MDNR. It alone achieves four of the five criteria of the Minnesota Rules	FIN03, FIN08
7309	More independent technical analysis and confirmation of PolyMet’s assumptions must be done to determine this amount. Given PolyMet’s current estimate, satisfying financial assurance will require hundreds of millions of dollars. Several alternatives for meeting the requirements of financial assurance are outlined in Minnesota Rules. In this case, only U.S. government Treasury securities held within a bankruptcy-proof trust fund under the complete control of the MDNR meets the objectives outlined in Minnesota’s Rules and protects the Minnesota taxpayer. Only U.S. Treasury securities are risk-free and introducing unnecessary third-parties entails fees which makes the economics of the net investment rate of return inefficient and impractical.	FIN03, FIN05, FIN08
9363	this definition [of ore] is unclear. It seems to imply that all rock containing metals will be “economically extracted,” when in reality much of the waste rock contains metals as well, but in amounts too small to be considered economical by PolyMet. Thus, the definition provided above is clearer.	PD30
9364	While MDNR and PolyMet officials have attempted to disclaim this language [200/500 years] in later drafts, MCEA believes that this language in fact represented the zenith of clarity in describing the water model, while later attempts have fueled confusion and fallen short in helping the public understand precisely what the model’s purpose and results are. Indeed, PolyMet and MDNR officials have, at times, suggested that the modeling results are not correct, and that water treatment will not be required for nearly as long as their own model demonstrates. Regardless of the reasons why PolyMet and DNR chose to run a modeling scenario for 200 years at the mine site and 500 years at the plant site, the water quality predictions are unequivocal. At the end of those time periods, the water in the mine features – the mine pit and the tailings basin – still do not meet water quality standards, and cannot be released without some sort of treatment.	WR035
9365	The Department of Natural Resources contends that it need not address financial assurance in the SDEIS. Therefore, the SDEIS does not contain any final estimates on how much financial assurance must be provided, nor does it provide information on the specific financial instrument (such as a bond or surety) that might be required. ... The SDEIS does not provide a total number that might be required for financial assurance, but it does provide a few preliminary cost estimates. ... These numbers come from PolyMet’s consultant, Foth Engineering. Neither DNR nor Foth have provided any information regarding the underlying assumptions or calculations that may have gone into this number, and DNR does not provide any of its own estimates.	FIN05, FIN08, FIN13
9366	Regions 9 and 10 have far more experience with mining operations and reclamation costs than Region 5, and it is appropriate to turn to them for guidance on inclusion of financial assurance at the EIS stage.	PER03
9367	when PolyMet was asked by Minnesota legislators to “show its work” at a hearing on financial assurance on February 11, 2014, PolyMet refused that request as well. Thus, PolyMet has kept its calculations concealed from the public as well as the Co-Lead Agencies.	FIN05

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9368	The Co-Lead Agencies did not question these assumptions and their consistency with Minnesota law. In fact, if PolyMet and MDNR’s statements in the media are to be believed, the Co-Lead Agencies have yet to require PolyMet to answer a fundamental question: How long will water quality treatment be required at the NorthMet site after closure?	WR036
9370	Finally, it should be noted that the Co-Lead Agencies ultimately changed their mind, and concluded that there would be no additional constituent loading to the surficial aquifer and Partridge River as a result of the West Pit Backfill. ...The current purpose of pumping in the West Pit is not to decrease constituent concentration; it is avoid overflow. However, this purpose could be changed if constituent loads were higher in the West Pit, and pumping increased, to avoid environmental impacts.	ALT03
9384	Finally, a total failure after operations (abandonment) is a scenario that must be explored. ...In any event, the Co-Lead Agencies’ failure to address the possibility that monitoring and maintenance will cease at this site at some point is best described as hubris, assuming prescience about future conditions that no human can have. And it constitutes a failure to address the potential impacts of this project under NEPA and MEPA.	PD22
9399	The geochemistry approach in the SDEIS is complicated and opaque. Yet this analysis underpins the oft-stated claim that there will be no acid mine drainage at the NorthMet Mine. The SDEIS should clarify the approach used for geochemistry analysis, including the use of humidity cell tests (HCT) and the calculation of concentration caps. ...While the Co-Lead Agencies have stated with confidence that the NorthMet Mine would not produce AMD, the data on which this claim is based is far less clear.	WR025, WR033
9400	The Co-Lead Agencies omitted the results of many lab and field tests from consideration by using “concentration caps” and averages. The Co-Lead Agencies should fully consider the results from the HCT and field tests that they disregarded in the SDEIS. The use of the concept of “concentration caps” and average values in the SDEIS distorts the results, does not capture the heterogeneity of the rock or seasonal variability, and likely underestimates the environmental impacts. ...Even more concerning, in some cases the Co-Lead Agencies and PolyMet257 have disregarded results from HCT and field tests altogether. PolyMet and its consultants used two methods that tended to eliminate the more damning results from consideration. First, PolyMet used the concept of “concentration caps,” ...Second, Barr Engineering used average values that do not consider the wide range of variability in field and laboratory tests.	WR033, WR034, WR071
9405	Ordinarily, geochemistry data, including all HCT and field test results, would be included as an attachment to the SDEIS or reference documents. ...Instead, MCEA had to make multiple document requests, and MCEA experts and staff are still not confident that we have obtained all relevant data. The Waste Characterization Data Package, one of the reference documents to the SDEIS, includes only summaries, not the actual results (Maest, p. 2). MCEA requested the documents referenced in the WCDA, but some of the data was missing. Another data request resulted in the remaining data. ...As seen in the attached documents, MCEA made specific requests to the Co-Lead Agencies asking for additional time given the difficulty in obtaining geochemistry documents	RFI01
9416	MCEA asks that you fully and clearly disclose the environmental impacts of the direct and indirect loss of wetlands and assess the significance of those impacts prior to assuming that the proposed mitigation measures would eliminate those impacts. This request is the only scientifically defensible environmental impact analysis approach and is required by both the NEPA and MEPA.	WET07
9422	In addition, pre-project monitoring locations only include three reference wetlands to document the natural hydrologic fluctuations in wetlands that would not be affected by the NorthMet project. Additional reference wetlands that represent the wide variance of wetland plant communities, chemistry and hydrologic regimes would be necessary to effectively correlate the natural fluctuations of wetlands outside of the NorthMet site with wetlands that may be affected by the NorthMet project.	WET22

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<b>Sender Name (Submission ID)</b>	Minnesota Center for Environmental Advocacy (MCEA) (52185)	
9907	The NorthMet SDEIS must include a fair and balanced evaluation of the socioeconomic benefits and risks associated with the NorthMet Project, including the reasonably foreseeable impact from unemployment associated with the well-established boom and bust cycle of the mining industry. In addition, the SDEIS must also provide an analysis of the potential negative impacts from the Project on the tourist industry and sustainable economies in Northeastern Minnesota and include a discussion of mitigation measures which would be available to address the negative socioeconomic impacts from the Project.	SO04
9908	The SDEIS also fails to consider alternatives for electricity consumption which would significantly affect the project's impact on the environment. Consideration of alternative energy sources should be a major component of the EIS given the enormous variation in environmental impacts between different sources. See	AIR02
9909	the SDIES does not address the indirect effects of additional vehicles on the road outside of the project area. Many of the routes employees take to get to the mine could result in an increased potential of a lynx being hit and killed. A daily increase of thousands of vehicles on roads to the NorthMet site is not an insignificant or immeasurable indirect effect. MCEA believes the SDEIS should provide a discussion on the increased traffic on local roadways could affect lynx.	WI01, WI03
9912	past biological assessments completed by Federal agencies in Minnesota and biological opinions completed by the USFWS have identified road and train traffic as major potential effects to lynx. However, the SDEIS glosses over these effects and does not disclose the significance of traffic (vehicle or rail) on the lynx...Multiple times in the Chapter 5 discussion in the SDEIS the potential for incidental take along the roadway is noted. However, no detail on why roadways or train tracks at the NorthMet could result in the harm, harassment or take of lynx is described or how lynx use roadways or train tracks for travel.	WI01, WI03
9915	The SDEIS's cumulative effects analysis is inadequate for several reasons, including but not limited to the following, which are discussed in more detail below: The SDEIS fails to analyze the cumulative impacts of the direct and indirect effects of the proposed mine and proposed land exchange together; The SDEIS inappropriately excludes several reasonably foreseeable actions from the analysis.	CU02, CU03
10004	MCEA expects that the co-lead agencies will respond to each of Dr. Chambers's and Mr. Thometz's comments individually on all topics, just as it would any submission from the public...MCEA incorporates these reports by reference and expects the Co-Lead Agencies to respond to those reports separately as part of the record...MCEA expects DNR to respond to all comments in Dr. Miller's report as part of the public record... MCEA hereby incorporates this report by reference, and expects the Co-Lead Agencies to respond to Dr. Maest's report as part of the record...MCEA expects DNR to respond to all comments in Dr. Glaser's report as part of the public record.	NEPA11
10006	The financial assurance analysis must contain, at minimum, the following: Calculation of maximum amounts needed to address reasonably foreseeable problems and accidents, with detail on how those estimates were made; Calculation of amounts needed to address reasonably foreseeable contingencies (using list from Bristol Bay report discussed in Section 6.0 as a starting point); Determination of discount rates and inflation rates, and sources used to set those figures; Analysis of project proponent's financial ability to pay for reclamation, including long-term water quality treatment, and to provide adequate financial assurance prior to receiving a permit to mine; and A thorough analysis of forms of financial assurance that will be acceptable under Minnesota law. Trust funds held for the sole benefit of the State of Minnesota must cover the entire amount needed, with instruments such as surety bonds, letters of credit, or insurance only usable as backups.	FIN05, FIN08, FIN12
10007	The agencies should assess the probability and impact of each of those kinds of accidents occurring, and also make a holistic assessment of accident risk at the mine.	PD22

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<b>Sender Name (Submission ID)</b> Minnesota Center for Environmental Advocacy (MCEA) (52185)		
10008	In addition, the Co-Lead Agencies should reevaluate their estimates of environmental impacts in light of previous experience with mining project environmental impact statements, particularly the chronic underestimation of negative water quality impacts.	WR023
10010	Finally, the agencies should not assume that there will be no errors in categorizing the waste rock, and should assess the consequences of reasonably foreseeable mistakes.	PD15, PD22
<b>Sender Name (Submission ID)</b> Minnesota COLA (38649)		
9962	the hydrological models used to predict hydrological events attendant to both extraction and refining are inadequate as the geology of the Virginia formation-the source of the metals to be mined-is not fully understood....	WR007, WR026, WR105
9963	it clearly states that it is not feasible to replace all affected wetlands through compensatory mitigation thus is contrary to both state and federal regulations....	WET01, WET04
9964	does not directly state the source or quantity of water to be diverted for use in the refining process; (It does speak to drawdown on both the Embarrass and Partridge rivers but how much and for how long is not stated.)	WR086, WR182
9965	critical computer modeling of runoff from tailings piles into nearby waters has shown to be inaccurate and underestimated;	WR056, WR060
9969	proposes unrealistic expectations that water treatment, projected/calculated by PolyMet to last some 200 to 500 years in duration, can actually be accomplished; ... and proposing that pit lakes are to be lined with a product guaranteed for only 20 years while the contained contaminate will exist in perpetuity.	FIN01
16680	There is no question that the waters of the state of Minnesota are a more valuable resource to the state than are the few minerals that could be mined for a relatively short period. PolyMet has not shown that it can effectively mitigate the risk to water quality and habitat that its proposed operation will create, nearly into perpetuity.	SO01, WR115
16682	it does not present sufficient evidence that lakes, rivers, streams, aquifers and wetlands would be protected during and after mining....	PD01
16684	examples of non-ferrous mining cited and used as comparables are those of mines located in the dryer, water poor areas of the U.S. and are therefore of questionable value in assessing how best to protect existing water resources....	PD26
16685	The wetland-rich area at the top of two continental watersheds is simply not a location where an operation like this should be allowed.	WET14
<b>Sender Name (Submission ID)</b> Minnesota Department of Health (42933)		
3563	The forces that created the fracture pattern in Lake and Cook counties would have also affected the Duluth Complex in St. Louis County, suggesting that local- to regional-scale fractures could be present and may act as possible conduits for higher rates of groundwater flow in the Precambrian bedrock. These fractures were not taken into account in the SDEIS. It would therefore be more conservative to assume higher flow rates when modeling groundwater and contaminant transport for this project... Assume higher flow rates for groundwater and contaminant transport modeling to account for local- to regional-scale fractures within the Duluth Complex.	WR009, WR012, WR087

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<b>Sender Name (Submission ID)</b>	Minnesota Department of Health (42933)	
3637	In most cases, either the federal MCL or the Minnesota Health Risk Limit (HRL) is selected, but higher SDEIS evaluation criteria were chosen for beryllium, manganese and thallium "...based on background water quality". Although manganese exceeded the federal MCL of 50 µg/L in most samples, Table 4.2.2-6 in the SDEIS indicates most of the groundwater samples collected near the proposed Mine Site were near or below the state Risk Assessment Advice (RAA) levels of 100 µg/L for infants and 300 µg/L for children and adults. MDH recommends the RAA values be used as the groundwater evaluation criterion for manganese...Use 100 µg/L for infants and 300 µg/L for children and adults as the groundwater evaluation criterion for manganese.	EDIT01
3638	[T]he detections of beryllium near the proposed Mine Site indicate background concentrations in the aquifers are generally below the federal MCL of 0.4 µg/L and only slightly above the MDH HRL of 0.08 µg/L. MDH recommends the HRL be used as the groundwater evaluation criterion, as beryllium concentrations in the Plant Site flow paths are also predicted to exceed the HRL in areas where domestic wells are present...Use 0.08 µg/L as the groundwater evaluation criterion for beryllium.	EDIT01
3646	Clarify inconsistencies between field leaching test results and modeling predictions that indicate no change in groundwater quality compared to existing conditions with no exceedances of groundwater evaluation criteria.	WR023, WR025
3690	An HIA on the project could provide additional health information for policy makers in determining how to balance health and citizens' concerns with economic benefits of the project. An HIA could be scaled according to available resources and still answer some of the health questions posed by the community. An HIA could provide recommendations to policy makers to support possible positive health outcomes and to mitigate or prevent possible negative health outcomes to improve the public's health and to inform zoning, permitting, monitoring, and reclamation policies...Consider preparation of a Health Impact Assessment.	HU01
12376	Groundwater discharge from the Mine Site to the Partridge River could impact the Hoyt Lake drinking water supply (via Colby Lake) and alter geochemical conditions that affect mercury availability to fish, creating another potential human exposure pathway. Therefore, conservative modeling of potential impacts to the river that incorporate all possible contaminant sources is critical.	HU03, WR024, WR042, WR043, WR046, WR125, WR158
12379	The SDEIS does not adequately address possible impacts of groundwater contamination on local domestic wells. A thorough inventory and baseline water quality assessment of existing wells should be conducted prior to the initiation of any mining activities so that any future degradation of drinking water quality related to mining activities can be identified and remediated.	WR040, WR041
12380	Air quality modeling for crystalline silica in the SDEIS is based on predicted PM10 and PM2.5 emissions. However, when discussing the toxicity of crystalline silica, the real concern is with respirable crystalline silica particles with a diameter of 4 micrometers (4 µm or 4 microns) or smaller, also referred to as PM4...PM2.5 measurements may underestimate health risks from crystalline silica exposures. MDH has established a chronic Health Based Value (HBV) of 3 µg/m3 for respirable PM4 crystalline silica and recommends using this as a screening value for assessing potential health risks associated with respirable crystalline silica.	AIR04, AIR10
12381	Table 5.2.7-8 in the SDEIS indicates that the NorthMet project will result in 196,341 metric tons per year (mtpy) direct and 511,000 mtpy indirect greenhouse gas (GHG) emissions...MDH recommends that all projects in Minnesota evaluate options for reducing GHG emissions, through energy conservation and use of renewable energy sources, to limit contributions to climate change and help achieve Minnesota's GHG emissions reduction targets	AIR01, AIR10

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<b>Sender Name (Submission ID)</b>	Minnesota Department of Health (42933)	
14478	The proposed groundwater monitoring network for the Embarrass River Watershed (SDEIS Table 5.2.2-54) includes only the existing monitoring wells installed around the Tailings Basin, which apparently are the wells shown in SDEIS Figure 4.2.2-13. Construction details for these wells are not included in the SDEIS and only two have records in the Minnesota County Well Index (CWI) (GW006, UN 625042; GW008, UN 625044)...[The Minnesota Department of Health] recommends that additional monitoring wells be installed within the bedrock aquifer to evaluate potential impacts to this aquifer.	PD05, WR079
14480	the SDEIS estimates that over 90% of seepage from the Category 1 Stockpile will be captured by the groundwater containment system with the remaining 10% following the groundwater flow to the West Pit where the water will be cycled through the Waste Water Treatment Facility (WWTF). However, the west end of the stockpile is located on a groundwater “high” (Fig. 4.2.2-5 in the SDEIS) from which some of the flow may be to the north and northeast and could discharge to Yelp Creek and then the Partridge River. This needs to be accounted for in the evaluation of potential migration of contaminants to groundwater and surface water and planning of the Mine Site groundwater monitoring network.	WR017, WR089, WR167
14482	the SDEIS notes that the national primary drinking water standards for copper and lead are treatment-based, “at-the-tap” values for public water supplies and not “in situ” groundwater values. Therefore, the SDEIS proposes that the secondary Maximum Contaminant Level (sMCL) of 1,000 µg/L for copper be used as the groundwater evaluation criterion. This value is protective only for acute health effects resulting from short-term, high level exposures and is not considered protective for infants, children, or other sensitive individuals. MDH is currently evaluating its advice for copper in drinking water. In the interim, MDH recommends that 300 µg/L be used as the groundwater evaluation criterion for the NorthMet project, as this appears to be protective for infants, children, and other sensitive individuals	HU14, WR110
14485	Given the presence of domestic water supply wells near the site, MDH recommends the national primary drinking water standard of 15 µg/L be used as a groundwater evaluation criterion in monitoring near the site.	PER29, WR110
14487	Table 4.2.2-24 of the SDEIS indicates higher manganese concentrations downgradient of the existing LTV Steel Mining Company Tailings Basin, but this simply suggests contamination of the surficial and bedrock aquifers from previous activities at this site that need to be considered in evaluating impacts to groundwater, not background concentrations for the aquifers. This is important as the maximum 90th percentile probability (P90) concentrations predicted in the 500-year model simulation suggests manganese concentrations in the groundwater in all of the flow paths from the Plant Site will exceed the MDH RAAs, including areas where domestic wells are present (Table 5.2.2-38 in the SDEIS).	PER29
14489	Seepage from the Category 2/3 and 4 waste rock stockpiles and Ore Surge Piles primarily will be captured by leachate collection systems and treated, but some will reach the groundwater along with seepage from the mine pits, WWTF equalization basins and Overburden Storage and Laydown Area and eventually discharge to the Partridge River (Table 5.2.2-26 of the SDEIS). Table 5.2.2-22 of the SDEIS suggests that this will result in little, if any, change in groundwater quality compared to the continued existing conditions and that none of the groundwater evaluation criteria will be exceeded... This seems inconsistent with field leaching test results on locally sourced Duluth Complex Gabbro	WR023
14490	Several untreated wastewater streams from the Plant Site appear to be directed to the Mine Site during the early phases of reclamation. These include untreated seepage from the Tailings Basin, blended with seepage that has passed through the Waste Water Treatment Plant (WWTP), which is to be discharged to the West Pit to accelerate its flooding...No information is provided regarding likely contaminant concentrations in these wastewater streams, so it is not clear how their possible contribution to groundwater contamination was evaluated.	WR173
14491	It is also unclear how constituent leaching was accounted for during the period while the pits are being flooded during the reclamation phase. Table 5.2.2-19 of the SDEIS seems to suggest the oxidation will occur before flooding, but ... fluctuating water levels result in conditions more conducive to acid mine drainage and metal leaching than full exposure to oxygen. The flooding of each pit will take approximately 20 days during which time it is likely water levels will fluctuate within the pits.	WR173

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Minnesota Department of Health (42933)	
14492	it is not clear whether the waste rock from the stockpiles will simply be deposited in the East Pit in year 11 and remain partly exposed for 20 years while the water rises around it, or if the placement of the waste rock will occur in stages to ensure the rock is either still on the stockpile liner (and leachate is collected and treated) or entirely submerged within the pit to minimize acid production and metal leaching.	WR029
14493	On p. 5-104, the SDEIS indicates that once flooded, groundwater inflow to the pits will limit the exposure of the wall rock to oxygen. However, no dissolved oxygen data was presented in Section 4 of the report. Has it been measured?	WR002, WR029
14494	Our assessment shows that there were no well records in CWI between the mine site and the Partridge River. However, Figure 1 (attached) shows that 19 located and eight unlocated wells with records currently within CWI met our search criteria for the area between the Plant Site and the Embarrass River, and by inference could be impacted by this mining activity...[and] there may be unlocated wells in the area that pre-date the Minnesota state Well Code in either of the modeled zones. These wells that pre-date the code would need to be inventoried, located and input into CWI. Any unused and unsealed wells found during the inventory could be conduits through which a contaminant plume could more quickly propagate, and therefore would need to be sealed as per current Well Code by the parcel owner, possibly with PolyMet Mining, Inc.'s assistance. Also, PolyMet Mining, Inc. should take every opportunity to collect baseline samples for any new wells that might be drilled in the area.	WR040, WR078, WR079
14495	Sample analytes and frequency of resampling are two aspects for which MDH would like to be consulted if permitting for the project moves forward. MDH is also interested in accessing the baseline data results archive and would ask to be included in those discussions as well.	GT04, WR039, WR142
14496	Water Supply Contingency Planning: The city of Hoyt Lakes relies upon Colby Lake as its drinking water source... in the event of unanticipated water quality degradation of Colby Lake related to the proposed mining activities...PolyMet Mining, Inc., as the owner and operator of the NorthMet mine, should assist with water supply contingency planning for the city. This contingency plan should address ongoing water quality and quantity monitoring and set up protocols for gradually changing conditions and emergencies, should they occur.	WR043, WR140
<b>Sender Name (Submission ID)</b>	Minnesota Environmental Partnership (18173)	
3948	The 90-day comment period is simply inadequate for the public to really understand this project...Without 180 days this process is flawed.	NEPA07
3951	There is a complete lack of backup plans from if something goes wrong with the tailings piles and basins, the pumps, the pipelines, the filters of the water system that needs to operate for hundreds of years.	PD22, WR090, WR130, WR131
3953	...the SDEIS relies on unreliable water modeling, including the flow of water that will be treated and the time frame for continued cleanup of the water from the mining.	PD29, WR035, WR063, WR147, WR189
14810	reuests an extenstion of the NorthMet Supplemental Draft Environmental Impact Statemetn (SDEIS) comment period, from the current 90 days to 180 days.	NEPA07
14811	The SDEIS is overly long...The SDEIS is complex and substantive conflicts are unresolved...The SDIES is not written by or for laypersons...Critical information in thousands of pages of references is not publicly available	NEPA07
14812	The SDEIS cumulative effects assessment is insufficient..Tribal cooperating agenices emphasized the need for a more thorough cumulative effects assessment of mining on Lake Superior Basin resources.	CU18

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Minnesota Environmental Partnership (18173)	
17498	Minnesota Environmental Partnership requests an extension of the NorthMet Supplemental Draft Environmental Impact Statement (SDEIS) comment period, from the current 90 days to 180 days. We also request that the co-lead agencies reschedule the public meetings for later in the comment period. At very least, a single additional public hearing should be scheduled toward the end of this extended comment period, in May 2014, to allow citizens to base their comments on a more thorough examination of the SDEIS.	NEPA07
17499	An extension of the comment period is required [because]: ...The SDEIS is overly long The document is 2200 pages long. Commissioner Tom Landwehr, at the December 6, 2013 press event, urged Minnesotans to take a "hard look" at it. An individual would have to read 25 pages a day before the end of the comment period to read the entire document and make informed decisions...Additional time is required for adequate review by any individual.	NEPA07
17500	An extension of the comment period is required [because]: ... The SDEIS is complex and substantive conflicts are unresolved . The SDEIS encompasses multiple projects, including the mine plant, the mine site, a tailings pond, a land exchange, transportation between the sites, financial assurance and offsite wetlands replacement projects. The document also contains substantive dissenting views, the Major Differences of Opinion documented extensively in Chapter 8.	NEPA07
17501	An extension of the comment period is required [because]: ... The SDEIS is not written by or for laypersons.... The current document is not readily understandable, clear or concise. As written, it excludes many members of society from meaningfully participating in its review. Time is required for technical experts and communications experts to fully understand the material and make it accessible for a broader range of audiences.	NEPA07
17502	An extension of the comment period is required [because]: ...Critical information in thousands of pages of references is not publicly available.The public cannot meaningfully analyze and evaluate the co-lead agencies' conclusions about the impacts of the mine without also evaluating the underlying references. Since these have not been provided to the public, it will take additional time for organizations and individuals to. Request the supporting documents, read, understand and disseminate these critical references.	NEPA07
17503	An extension of the comment period is required [because]: ...The SDEIS Cumulative Effects Assessment is insufficient. Tribal cooperating agencies emphasized the need for a more thorough cumulative effects assessment of mining on Lake Superior Basin resources. The undersigned groups and many others recently asked EPA Region 5 to engage in a new, broader analysis of the impacts of mining on Lake Superior and the Great Lakes.	NEPA07
18984	Thousands of acres of moose habitat would be destroyed at the PolyMet mine site, and moose have been observed there.	WI01, WI02
18985	PolyMet proposes the largest permitted destruction of wetlands in Minnesota history. PolyMet would dig up nearly 1,000 acres of high value peat bogs, part of the 100 Mile Swamp, a critical habitat for many plants and animals. This wetland is designated an Area of High Biodiversity Significance by the Minnesota Biological Survey.	WET19, WET23
18986	The Poly Met operation will be a huge contributor of greenhouse gasses. Emissions from PolyMet would increase Minnesota's annual statewide emissions by 0.44%. All this when Minnesota has set a goal of reducing Minnesota's greenhouse gas emissions 30% from 2005 levels by 2025.	AIR01
18987	PolyMet would emit 4.6 pounds of mercury into the air from their operations every year, and the coal power they rely on would add even more. Water and air pollution from mine pits, waste rock and tailings piles and PolyMet's excavation and changing hydrology in wetlands would increase mercury loading to wetlands and streams and increase mercury bioaccumulation in fish, putting human health at risk. The PolyMet mine plan also increases mercury in the Embarrass River, and sulfate pollution from the site could increase methylmercury, the form of mercury most dangerous to people.	MERC02, MERC08, MERC09, MERC23

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Minnesota Environmental Partnership (18173)	
19076	It is clear that the 90-day comment period was too short for adequate review of the complex SDEIS documents. When the comment period stops prematurely on March 13, important public comment will be absent from the record. As a result, the entire SDEIS process is inadequate and therefore the Final EIS should not be determined to be adequate.	NEPA07
19077	The SDEIS is overly long. The document is 2200 pages long... An individual would have to read 25 pages a day before the end of the comment period to read the entire document and make informed decisions. The Executive Summary alone is 58 pages. Additional time is required for adequate review by any individual.	NEPA07
19080	The SDEIS is multifaceted. The SDEIS encompasses multiple projects, including the mine plant, the mine site, a tailings pond, a land exchange, transportation between the sites, financial assurance and offsite wetlands replacement projects [which should require an extension to the comment period].	NEPA07
19081	The document also contains dissenting views, the Major Differences of Opinion documented extensively in Chapter 8.	NEPA12
19083	The SDEIS is not written by or for laypersons...The current document is not readily understandable, clear or concise. As written it excludes many members of society from meaningfully participating in its review. This technical and complex SDEIS will, unfortunately, likely not be rewritten to be readily understandable. Therefore, more time is required for both technical experts and communications experts to fully understand the material and make it accessible for a broader range of audiences.	NEPA07
19084	The public cannot meaningfully analyze and evaluate the co-lead agencies' conclusions about the impacts of the mine without also evaluating the underlying documentation. This will take additional time both for organizations and individuals to request the supporting documents, to read and understand them, and to disseminate them to the interested public.	NEPA07
19085	The SDEIS does not include ongoing Cumulative Effects Assessment...An extended comment period will allow the NorthMet project to be understood and analyzed in a broader context.	NEPA06
19086	MDNR's December 2013 assessments of Partridge River base flow pertinent to mine site recharge and pollution transport was acknowledged by the MDNR in late January 2014 to diverge from the base flow used for modeling in the SDEIS.	WR004
19087	Basic information on water balance and water chemistry is missing from both the SDEIS and from documents referenced in the SDEIS. Additional time may have allowed agencies to provide the missing information in time for public review.	NEPA07
19088	Basic information on mine site and tailings site geological conditions, including but not limited to fractures, is missing from the SDEIS or inaccurate. Additional time may have allowed agencies to provide the missing information in time for public review.	WR007, WR008
19090	Basic information on constituents in and management of reject concentrate, filtered sludge and Hydrometallurgical Residue Facility waste is missing from both the SDEIS and from documents referenced in the SDEIS. Additional time may have allowed agencies to provide the missing information in time for public review.	WR066, WR143, WR145, WR146
19092	Basic information on mercury in ore, waste rock, tailings, peat, process water, tailings pore water, liner leaks and groundwater flow paths is missing from both the SDEIS and from documents referenced in the SDEIS. Additional time may have allowed agencies to provide the missing information in time for public review.	MERC06, MERC16, MERC20, MERC21

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Comment ID	Comment Text	Theme Codes
	<b>Sender Name (Submission ID)</b> Minnesota Environmental Partnership (18173)	
19094	Citizens who testified at the public hearings had just five weeks to review the SDEIS and prepare their testimony. Those that did refer to the SDEIS made statements such as: "I haven't read the whole thing but I did look at the executive summary." "I can't understand this myself, but. ... " "I trust the agencies that developed this." Blind trust in governmental agencies shortcircuits the public review process.	NEPA07
19095	A number of professional conservation organizations, despite having access to the preliminary documents and significant staff resources and contracted experts, will not be able to meet the deadline. Flaws in the SDEIS are buried deeply and have required detailed analysis just to identify, leaving inadequate time to frame comments. This will leave detailed and important comments unheard.	NEPA07
19098	As a result of the Co-Lead Agencies' refusal to extend the comment period, the public review of the SDEIS is lacking in the depth and comprehensiveness essential to a project as complex as this. Therefore, the Final EIS cannot be considered to be adequate and must be rejected.	NEPA07
19101	Minnesotans favor requiring that when a mine is closed, it be left in a condition where it will not pose an ongoing threat to water quality. This mine, as described in the SDEIS, clearly does pose an ongoing threat.	FIN14
19103	The overall environmental review process has had some serious flaws. The Poly Met SDEIS compares no alternatives other than two sizes of land exchange. It does not compare an underground mining alternative or avoiding a permanent waste rock pile by putting waste rock back into the west pit. It doesn't analyze alternatives like a liner under the permanent waste rock pile, a liner under the tailings piles, or ways to reduce water drained away from Partridge River watershed wetlands and streams.	ALT01, ALT03, ALT06, ALT07, ALT23
19110	Cumulative impacts of the PolyMet project and other existing and expanding mines would impair wild rice, fish and aquatic ecosystems and violate the treaty rights of Indian tribes to hunt, fish and gather in Superior National Forest lands ceded to the United States.	AQ10, AQ27, CU11
19111	The company's own computer models show that hundreds of years after the mine closes, water seeping into groundwater and flowing into streams and rivers at the site will be polluted with heavy metals and sulfates. Unless all of this water is captured and treated, the mine will pollute surrounding waters.	WR107, WR108, WR111, WR115
19112	Minnesota law requires that a closed mine site be "maintenance free," but PolyMet's mine plan calls for hundreds of years of monitoring and expensive water treatment. Worse, these models don't demonstrate that the pollution stops after 500 years. The modeling simply ends at 500 years.	FIN14, WR037, WR195
19113	PolyMet's predictions regarding water pollution rely on unsubstantiated assumptions that no pollution will seep from the 526-acre permanent mine site waste rock pile into the 100 Mile Swamp, and that pumps on the edge of the 2-mile-wide tailings pile will capture 99.37 percent of the seepage.	WR010, WR018, WR060, WR080, WR167, WR175
19114	The SDEIS is flawed because it does not provide accurate information about how long polluted water will require treatment.	WR035
19115	The SDEIS is flawed because the Poly Met mine plan does not take into account the destruction of moose habitat.	WI02
19116	Protecting moose is a particular concern for tribal members, and there is no analysis of the cumulative impact on moose from the Poly Met project and other habitat disruptions.	WI09
19117	PolyMet is required to replace lost wetlands, but they understate the area of wetlands they would affect, they fail to replace the unique habitat offered by peat bogs, and they propose replacements that are far from the mine site. The SDEIS is flawed because the mine plan needs improved wetland protection and replacement.	WET05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Minnesota Environmental Partnership (18173)		
19119	The SDEIS is flawed because the mine plan counteracts Minnesota's stated carbon emissions reduction goals. The Minnesota DNR, through the mine plan, should require use of clean energy to reduce impacts of pollution.	AIR01
19121	The SDEIS is flawed because the mine plan increases the risks of mercury pollution/or Minnesota children.	MERC03
19122	It is clear that the 90-day comment period was too short for adequate review of the complex SDEIS documents. When the comment period stops prematurely on March 13, important public comment will be absent from the record. As a result, the entire SDEIS process is inadequate and therefore the Final EIS should not be determined to be adequate.	NEPA07
19123	Some critical background documents, such as the Wetland Impact Assessment Technical Memorandum -Appendix B, were not made available until February 24, 2014, less than three weeks before the end of the comment period.	NEPA07
19126	During the course of the 90-day comment period, substantive issues with the PolyMet SDEIS became apparent, each of which could have been addressed by a longer comment period. We learned that the water models in the document didn't match with current conditions on the ground, not to mention the mine area after it's impacted. Researchers found that basic information on water balance, water chemistry, geological conditions of the mine site, and potential pollutants was missing.	NEPA07
19127	The SDEIS is flawed because the public review of the SDEIS is lacking in the depth and comprehensiveness essential to a project as complex as this.	NEPA07
19128	PolyMet's SDEIS is not accurate and must be redone.	NEPA15
19130	PolyMet's plan threatens the waters of northeastern Minnesota and must be rejected.	WR107, WR108
19133	Unless there are very substantial changes to the SDEIS, the final EIS will fail to reach the minimum standard needed to be deemed adequate.	NEPA09
<b>Sender Name (Submission ID)</b> Minnesota Geological Survey (43014)		
3721	The current conceptual models in the SDEIS characterize the Duluth Complex and Giants Range Batholith bedrock as bulk masses of rock with low, uniform permeability. Although this type of characterization is sometimes deemed sufficient for some purposes, ... it has well known deficiencies when applied to numerical modelling of smaller-scale sites, especially for predicting solute transport. Instead, the development of conceptual models that employ techniques whereby discrete fractures or fracture zones are more fully considered, results in improved prediction of solute transport, including better estimates of travel times, and recognition of variation in flow directions and discrete pathways in three dimensions.	WR194
3770	The data collected thus far from the proposed NorthMet Mine Site and Plant Site/Tailings Basin area are not sufficient to recognize the kinds of hydrogeologic features known to be characteristic of other crystalline bedrock settings on the Canadian Shield... Nor are the data sufficient to adequately support the simpler conceptual model currently depicted in the SDEIS.	WR008, WR009, WR011, WR012, WR014, WR019, WR056, WR061, WR071, WR087, WR097, WR098, WR168, WR169, WR170

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Minnesota Geological Survey (43014)	
3782	The SDEIS conceptual model for the Mine Site could be much better supported. First, inferences about the likelihood of extensive fractures of hydraulic significance in the Duluth complex are based on the incorrect premise of insufficient post-emplacement tectonic activity to generate such features in the region.	WR008, WR009, WR011, WR012, WR014, WR019, WR056, WR061, WR071, WR087, WR097, WR098, WR168, WR169, WR170
3785	No subsurface hydrogeologic information was collected from the Giants Range Batholith, which underlies the Plant Site/Tailings Basin area. Instead, the hydrogeologic characterization of the Giants Range Batholith relies on a number of general observations and inferences based on geologic context... The SDEIS would be considerably improved by providing stronger support for the conceptual model of the Giants Range Batholith...	WR072, WR168
3990	Improving the quality of the conceptual model will lead to improved prediction of potential impacts to groundwater, engineering of containment systems, and design of monitoring systems.	WR071
4000	Characterization of fractures at the Mine Site is based largely on inferences drawn from geologic context.	WR007, WR010
4002	[The SDEIS conceptual model for the Mine Site could be much better supported.]... Second, the manner in which data were collected at the Mine Site, especially the use of long open hole intervals for hydraulic testing and water sampling, is insufficient to test the hypothesis that extensive high transmissivity fractures or fractured zones are absent... Scale effect is also a factor. Boreholes are less likely to intercept hydraulically active fractures than the proposed pit walls. This also should be discussed as part of the SDEIS.	WR012, WR071, WR087, WR168, WR169, WR179
4003	Information from outside of the Mine Site area appears to be inconsistent with the SDEIS suggestion that densely fractured uppermost bedrock has been removed by glacial scouring in the area. A site-specific example is a well-known contamination site in a younger Midcontinent Rift intrusive complex near Finland Minnesota where abundant fractures in the uppermost 100 feet of bedrock serve as fast-flow groundwater conduits (e.g. Harza Engineering Company, 1999)... specific capacity data from Duluth Complex water wells ((County Well Index (CWI)) in northeastern Minnesota also are suggestive of enhanced fracturing in uppermost bedrock.	WR011
4018	Improved understanding of the hydrogeologic system in the Duluth Complex at the Mine site could be achieved by the acquisition of hydraulic and water chemistry data at much more discrete intervals. This would include testing and sampling of boreholes with shorter open hole intervals at variable depths (e.g. "nested" wells) and/or discrete interval packer testing and water sampling of long open holes... The hydraulic and water chemistry information from these discrete intervals in a number of boreholes would ultimately lead to an improved conceptual model for the prediction of solute transport.	WR071
4020	The use of the Duluth Complex as a hydrogeologic analogue is difficult to support. The Giants Range Batholith is Archean in age, more than 1.5 billion years older than the Duluth Complex, and therefore the assumption that the two units have similar stress, weathering, and erosional histories is not valid.	WR194
4027	Hydraulic and water chemistry data from discrete intervals in shallow (<50 feet) bedrock conditions [at the Plant Site/Tailings Basin area] would be particularly useful to test the inference of a no-flow boundary. Bedrock groundwater chemistry could be particularly useful at this site, because constituents derived from past activities at the existing Tailings Basin may serve as a tracer to better understand solute transport through the bedrock. Such constituents have already been recognized in groundwater sampled from unconsolidated sediment in the area (SDEIS page 4-114).	WR008
<b>Sender Name (Submission ID)</b>	Minnesota Izaak Walton League (38074)	

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Minnesota Izaak Walton League (38074)	
4505	IWLA believes that a substantial amount of the work on this subject [financial assurance] needs to appear in the SDEIS... IWLA understands that the Permit to Mine process will include a good deal of negotiation around financial assurances, but IWLA also believes that a very thorough initial discussion is needed in the SDEIS...Deferring to the permit to mine process eliminates adequate opportunity for understanding the key elements involved in financial assurances.	FIN13
4506	IWLA states that the information provided by Foth Engineering to PolyMet, including the menu of financial alternatives and the possible closing cost at various time scenarios, is inadequate to enable a person reading the SDEIS to have enough information on financial assurances to confirm that amounts, timing, and safety are going to be met...nor does IWLA concede that DNR Division of Lands & Minerals is the only authority for protecting Minnesota taxpayers and Minnesota natural resources from the consequences of inadequate financial assurances.	FIN05, FIN10, FIN13
4507	Public access to important financial assurance information will be inadequate given a very high likelihood that the Permit to Mine process will include significant pressure to issue permits and focus on moving the project forward.	PER03
4508	DNR by virtue of its mission charge is a conflicted agency. The State of MN directs the DNR to "develop" these mineral resources in addition to the charge that the development meets environmentally acceptable outcomes.	PER42
4510	Foth Engineering scenarios in the SDEIS do not include any supporting assumptions used to drive their alternatives. Such info is very important to NGO groups like IWLA.	FIN05, FIN08
4512	North Met should be required to complete the reclamation, and remainder treatment phase of NorthMet in no more than 10-15 years after mining is done. The SDEIS should require such project design and build financial assurances on that basis. Allowing up to a decade and a half for post mining obligations are reasonable. Allowing a project design in the SDEIS that accepts 200-500 years of post operation treatment is not acceptable. IWLA understands and agrees however, that post operation monitoring paid for by Polymet is necessary for as long as is needed.	PD01
4517	3.1.1.7 Project closure overview. Comment: Who would be responsible for this judgment..[of how long monitoring and maintenance of reclamation and operation of mechanical water-treatment infrastructure is needed]? The Co-Lead Agencies or their successors?	PD24
4521	3.1.1.7 Project closure overview. "PolyMet would be held accountable [for] maintenance and monitoring required under permit and would not be released until all conditions have been met." [To be guaranteed by Financial Assurance agreement.] Comment: A lot to take on faith.	FIN11
4522	3.2.2.5: Mining..Such potential expansion of mining [outside planned pits beyond the NorthMet Project due to known mineralization] should be addressed in Chapter 6, Cumulative Effects.	CU02, PD30
4523	3.2.2.1.7: Overburden and Waste Rock Management. Each of these three types [of overburden (unsaturated, peat, and saturated)] must be segregated in stockpiles since they will have different uses.	PD15
4524	3.2.2.1.7: Overburden and Waste Rock Management. Why separate Categories 2 and 3? Will they be mixed, or segregated, and why (in each case)? Why is there a need to capture the drainage from Cat. 1 stockpile if it is so low in S? Why else was the 0.12%S cutoff established? What experimental data support this value? If the cutoff value were reduced to 0.10%S, would this eliminate the "necessity" to capture and treat seepage? Lowering the cutoff value to 0.10%S would increase the size of the Category 2/3 stockpile, but if no permanent capture and treatment is required wouldn't this dramatically lower the long-term post-closure costs? What is the experimental evidence for the long-term integrity of the geomembranes used in the waste rock stockpiles for Cats 2,3,4?	PD15
4525	Would peat beneath the dikes present stability problems?	GT01, GT06

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<b>Sender Name (Submission ID)</b>	Minnesota Izaak Walton League (38074)	
4527	This facility [Wastewater Treatment Facility] is to be maintained “as long as necessary”, including possibly adding to its capabilities if found necessary (perhaps including reverse osmosis, RO). Question: Hundreds of years?	PD03
4529	3.2.2.1.8: Reject concentrate from the WWTF to be evaporated/crystallized and disposed of offsite. Needs explanation: Where? How? By whom? Moving a pollutant elsewhere doesn’t eliminate it.	WR145
4530	3.2.2.1.9: Water Management. Recommend: overdesigning for extreme weather/climate events or conditions (drought, 200 year precipitation event, snowmelt).	PD22
4531	3.2.2.1.10: Reclamation and Closure...Recommend: lime or limestone should (not “could”) be added to East Pit as it is backfilled with Cat. 2,3,4 waste rock to help neutralize pore water.	WR027
4532	West Pit: Question: Where is the rationale for flooding to a pond? No liner or bentonite? Won’t the water react with mineralized pit wall rock? What is the predicted water quality of this water over time? Such pit lakes in other mining districts with sulfide mineralization are often highly acidic and toxic.	PD03, PD15, WR057
4533	Category 1: well-engineered cap with local soils, vegetation, and geomembrane to lessen infiltration – but hazard of long-term succession to forest in this climate, with deep roots that could penetrate geomembrane. Needs a discussion! Question: What is the risk associated with such root penetration over centuries? PolyMet plan is to cut woody vegetation in perpetuity, apparently! This issue needs to be investigated at depth.	PD16
4534	“PolyMet has committed to conduct demonstration projects during the Life of Mine and Reclamation phases (total of est. 40 years) to establish non-mechanical water treatment systems to be used at the Mine Site.” Comment: They should have started long ago! How will this commitment be enforced?	PD06
4535	Table 3.2-12....here will these chemicals end up? In the tailings? Will there be release to the Embarrass River watershed? What is the toxicity of these materials?	PD03
4536	3.2.2.3.5: Tailings Management: Rock buttresses along north tailings basin dam seem much too small to be effective for stability. Comment: Re-do stability modeling?	GT03
4545	3.2.2.3.6: Hydrometallurgical process: Table 3.2-13. Question: what will be the fate of the potentially noxious chemicals Sulfuric and Hydrochloric acids, liquid SO <sub>2</sub> , and Sodium Hydrosulfide? Same question as for flotation chemicals above.	PD18
4546	3.2.2.3.10: Engineered water controls: Seepage interception systems would require pumps to route drainage to Tailings Basin or the WWTP. Comment: In perpetuity, apparently. A tall order.	PD03, PD07
4547	3.2.2.3.12: Reclamation and Long-term Closure Management: Hydrometallurgical Residue Facility Reclamation (p. 3-130) - Dewatering sounds complicated and difficult, including “early in the . . . process. Access to the residue surface may be somewhat difficult due to the fine-grained characteristics.” Questions: Slime? How will this be dealt with? Revegetation also includes yearly mowing “or as needed”. Again, rationale for no woody succession? For 200 years? Inspection for plugged inlet structures and piping systems (p. 3-131) also perpetual?	PD20
4548	3.2.3.4.2, West Pit Backfill...Several arguments presented for not backfilling, but others not explained: “It was determined [how?] that it would not offer substantial environmental or socioeconomic benefits.” Comments: The economic factors (potential inaccessibility of mineral value; cost of moving waste rock for fill) seem to have trumped others.	ALT03

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<b>Sender Name (Submission ID)</b>	Minnesota Izaak Walton League (38074)	
4549	Duluth Complex waste rock is made mostly of silicate minerals, which “would help neutralize some acid generated by the sulfide minerals, such that the Category 1 stockpile and the Tailings Basin are predicted to remain at neutral pH.” Question: Then why collect and treat seepage?	PD15
4550	Both Category 1 waste rock stockpile and Tailings to have a seepage containment and treatment system; discharge not to exceed the 10 mg/L SO4 standard. Cat. 1 stockpile also to be capped with geomembrane and vegetation to lessen infiltration. See above Question [Then why collect and treat seepage?]. Is it the SO4 limit, not the acidity, which requires long-term treatment?	WR035, WR134
4551	Post-closure non-mechanical treatments anticipated but not here specified might include “constructed wetlands, permeable reactive barriers, permeable sorptive barriers, and/or other technologies to be identified.” Comment: These are “considered a long-term goal for closure”, and therefore should be thoroughly described and discussed well ahead of time (in the EIS).	PD06
4552	Does this also mean that the SO4 standard is the limit driving the whole seepage treatment plan? What dilution factor (from tributaries) is valid for the St. Louis River between the Embarrass River and Fond du Lac Reservation?	PER22
4553	5.2.2.1.2 Surface Waters. Hydrology: The DNR “has recommended that maintaining surface flows within about +/- 20 percent of existing conditions in mining-affected streams should be a management objective where reasonably practical in order to maintain existing aquatic ecology”. Questions: What baseline information is available on “existing aquatic ecology”? It’s impossible to judge this “requirement” without known present conditions baseline.	WR071, WR185
4554	5.2.2.2.1 Groundwater Hydrologic Modeling:… Table 4.2.2-5 presents data from limited studies. Question: Did anyone examine the miles of bedrock drill core or core logs thereof for fractures?	WR014
4555	5.2.2.2.2 Surface water Hydrologic Modeling: One input factor is a “rainfall database” (p. 5-45). Questions: How long-term is this? How sensitive is the model? Does it consider 200 years? Climate change? In Table 5.2.2-13, only the 20-year annual low and high flows are modeled. This EIS should be valid for MUCH longer.	WR077, WR180
4556	5.2.2.2.3 Water Quality Modeling (GoldSim)NorthMet Waste Rock Geochemistry: PolyMet claims that “Within the pit walls the blasting effects [on fracture permeability] are limited in terms of lateral extent and do not have much effect on solute transport in bedrock”. Question: What actual measurements support this statement? Any data – or a hunch?	WR016
4557	5.2.2.2.3 Water Quality Modeling (GoldSim)Claim (p. 5-51): the acid-generating sulfides in rock with <0.12%S would be “completely neutralized” by the basic components of the dominant silicate rock minerals during oxidation. “Category 1 waste rock . . . is predicted to never generate acidic leachate”. This conclusion apparently comes from 4 years of experimental simulated weathering cycles, plus further testing and analyses. Question: Then why collect and treat drainage/seepage from the Cat. 1 waste rock and tailings?	WR134
4558	5.2.2.2.3 Water Quality Modeling (GoldSim)Virginia Formation rock contains high S (0.4-5.0%S) and is similar to Class 4 Waste Rock but predicted to “produce acidic leachate immediately upon weathering”. Question: Where would this material be encountered in these pits? Virginia Formation is not found on the pit cross-section diagrams. Would it be combined with Cat. 4 waste rock and disposed of in the East Pit, or how? Why isn’t it simply included in Waste Rock Category 4?	WR034
4559	PolyMet states that “not all sulfide sulfur has the same potential for release” Explain, including management implications.	PD15
4560	On p. 5-54 the concept of “concentration caps” is introduced, on the basis apparently of empirical field and lab observations and relied on to minimize solute loadings of effluent in the modeling calculations. Question: what is the theoretical basis or rationale for such “concentration caps”? Is it a valid concept on which to base environmental standards?	WR033

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4561	“... four solutes are assumed to be attenuated by adsorption in the aquifer: As, Sb, Cu, and Ni.” Kd values from the literature are used to describe this attenuation. Questions: Do the media through which these leachates pass never become saturated in these solutes? This seems unlikely. Therefore how can this adsorption process be counted on to act on the long term of this project? What is the experience from the Dunka Pit waste rock experiment?	WR023, WR058, WR167
4563	LTV tailings (on which the NorthMet tailings are to be placed) contain carbonate minerals and produce a basic leachate in lab tests. Modeling predicted much higher solute loads for many components than observed empirically, apparently due to adsorption, and models were adjusted correspondingly by “calibration factors” [fudge factors] to produce results closer to those measured. Comment: This should be explainable scientifically. Questions: What is the rationale for the size of the pond on top of the tailings? What is the basis for the rates of recharge given in Table 5.2.2-17? This certainly would be seasonably variable. Have weather/climate extremes been taken into account? Global warming? What is the “closure beach” as opposed to the others?	WR050, WR057, WR060, WR065, WR180
4564	“Regarding the selection of the P90 threshold, “the Co-Lead Agencies also retain the flexibility to modify this evaluation criteria based on consideration of low-flow modeling analyses, site-specific factors, and model predictions in consideration of applicable permitting regulations and guidance” (p. 5-77). Question: Isn’t this a big loophole for future enforcement? Of course, it also could be economically beneficial if long-term experience shows permit requirements to be stricter than necessary to maintain water quality. Can we trust Agencies to enforce the permits?	PER06, PER37
4565	5.2.2.3.1 Water Budget Overview Operations (years 1-20):...What will be the oxygen content of this flooding water? Won’t it be at least initially oxidized as it contacts waste rock and pit walls? This will generate acid immediately. What do experiments show for this with time? How will the pore water in the pit be kept from diffusion or replacement by lateral infiltration of more oxygenated groundwater, thus continuing acidification?	WR029, WR173
4566	5.2.2.3.1 Water Budget Overview Reclamation (yrs 20-40)...West Pit to be allowed to flood naturally. When level reaches top of bedrock, pit water would enter the surficial flowpath, migrating slowly towards the Partridge R. Questions: Will there be no surface overflow? [Next section calls for pumping excess to WWTP] Will there be no attempt to minimize reaction with wallrock sulfides? What predictions have been made for water quality in this unlined pond in mineralized rock? Many examples in other mining districts of such pit lakes becoming seriously acid and toxic. Add limestone? Bentonite?	WR027, WR088
4567	5.2.2.3.1 Water Budget Overview Reclamation (yrs 20-40)...Plant Site – Question: What modeling has been done for water balance in the Tailings Basin? Will pond require augmentation during drought? If so, where from? Or is this not important? If so, why not?	WR056, WR182, WR188
4568	5.2.2.3.1 Water Budget Overview Closure (after 40 yrs)...Mine Site Continued (possible perpetual) monitoring of seepage; operation of WWTF with RO; disposal of solids offsite...; treated effluent released on surface to Partridge R drainage; pumping of excess West Pit water to WWTF. Possible modification of dikes and surface water flows “as necessary”. Question: As necessary according to whom? Could high pumping rates of excess West Pit water exceed capacity of the WWTF?	WR128, WR130
4597	5.2.7.5.1 Environmental Consequences...Using the “MN-fiber” definition would be a highly conservative standard, since in my experience the great majority of particles likely to cleave with that aspect ratio in igneous rocks such as the Duluth Complex would be hornblende, the most common amphibole and one that is not implicated in health issues (see list on p. 5-436-437).	AIR03
4598	5.2.7.5.2 Evaluation Criteria: “However, amphibole minerals are present in the Duluth Complex and in close proximity to the NorthMet Deposit” (p. 5-440). Comment: Considering the intensive sampling that has been done of the rocks proposed to be mined, by drill core and for bulk metallurgical testing, the amphiboles should have been – and must be – identified to evaluate their potential carcinogenicity. Then any necessity for treatment could be better evaluated.	AIR03

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4599	5.2.7.5.3 North Met Project Proposed Action. Comment: Again, a “small fraction of <2.5 micrometer fibers have been identified as amphibole” from flotation pilot testing. These should have been identified as to amphibole type. Questions: (last line p. 5-441) “. . . Wet and minimize wind erosion.”	AIR03
4601	5.2.14.2.1 Waste Rock Stockpiles. Design Criteria: Much depends on future PolyMet analysis of stockpile subgrade settlement including behavior of the stockpile liner system. These will depend on the physical characteristics of the materials used, especially the geomembranes as “determined from the manufacturer’s specifications”. Question: What is the long-term (100 year, 300 yr) empirical basis for such specifications, under saturated, in-ground conditions? Of course, great care must be taken in laying down these geomembranes to prevent punctures and local strains.	PD15
4602	5.2.14.2.1 Waste Rock Stockpiles. Design - Category 1 Stockpile - Questions: What is the angle of repose for each lift? How is it to be determined for modeling/planning? Empirical observation during construction? Long-term stability?	PD15
4603	5.2.14.2.1 Waste Rock Stockpiles. Category 2/3/4 Stockpile: PolyMet commits to investigate and test in the future appropriate stability relations and design. Stability analyses of stockpile cross-sections “indicated that all sections analyzed met the minimum required Factors of Safety”. Question: What Factors of Safety are required?	GT04
4604	5.2.14.2.1 Waste Rock Stockpiles. Proposed Monitoring, Maintenance, and Mitigation. Plan requires continued monitoring and maintenance and adaptive management through the Life of the Mine and beyond “until the DNR determines that the cover is stable”, with an annual compliance report. Some “excess” waste rock or overburden might be put in the West Pit. Question: Why only monitor the waste cover? Not the	PD15
4605	5.2.14.2.2 Tailings BasinDesign Criteria: Factors of Safety required are taken from State Rules, and adopted by NorthMet Geotechnical Modeling Work Plan: Factor of Safety of 1.5 for long-term (?), drained conditions; 1.3 for short-term (?), undrained conditions; and 1.1 minimum for materials deemed subject to liquefaction. This latter value seems much too low!	GT02
4607	5.2.14.2.2 Tailings BasinDesign: Plans use “upstream” method of building tailings disposal over LTV tailings, with drainage layers beneath the NorthMet tailings. Rock buttresses to be added at base of N and S slopes. Questions: Will these small-looking rock buttresses be large enough to confidently maintain stability post-closure? Where would the LTV tailings to be used in adding to the dams come from? The adjacent W cell?	GT03
4608	5.2.14.2.2 Tailings BasinExterior dam faces to be augmented with bentonite to lessen oxygen and water infiltration, and vegetated. Vegetation to be maintained in perpetuity in non-woody condition (!) Question: Again, is this necessary? Is it possible?	GT09
4609	5.2.14.2.2 Tailings BasinLong-term Closure Stability Conditions: . . .But since these tailings are supposed to be non-acid-forming, why is it necessary to keep them water saturated?	WR002, WR029, WR057
4610	5.2.14.2.2 Tailings BasinDam safety reports should be done more often than every 5 years.	PER21
4611	5.2.14.2.2 Tailings BasinProposed Maintenance and Mitigation: “Where monitoring or model updates indicate that the Factor of Safety . . . no longer meets design criteria, appropriate modifications to the Tailings Basin would be considered, modeled, and, if necessary, undertaken.” “A Contingency Action Plan has been prepared.” (p. 5-569) Actual possible physical modifications to the Tailings Basin in case of a problem are not described.	GT07

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4613	5.2.14.2.3 Hydrometallurgical Residue Facility Design: Site preparation includes installation of a granular drainage layer and wick drains, then temporary loading with imported material to compact the substrate and increase stability. Questions: What kind? Where from? To be mostly removed, and remainder used as more stable base for the HRF waste and liner system. Design Cross-sections. These show waste to be underlain by potentially unstable saturated LTV slimes and fine tailings and peat (see above Design element).	GT08, GT11
4614	5.2.14.2.3 Hydrometallurgical Residue Facility Stress Deformation and Strain in the Liner System: (see Design element above) HRF waste expected/modeled to compact/consolidate after basin is filled, producing a concave surface. Differential compaction would stress the liner system, but modeled strain would fall “within acceptable limits of most geosynthetics.” (p. 5-575). Comment: Need better assurance than this.	GT12
4615	5.2.14.2.3 Hydrometallurgical Residue Facility Global Slope Stability: “Analysis of the new [HRF] dams . . . at their greatest height (at year 20) resulted in a computed Factor of Safety for the ESSA of 2.32, which is greater than the “required” minimum of 1.5.” (p. 5-575). Surface failures are not expected by the modeling. Liquefaction analysis was not performed. Question: What is the strength of the HRF residue/waste? Might it not be at risk of liquefaction?	GT11
4616	5.2.14.2.3 Hydrometallurgical Residue Facility Infinite Slope Stability: Important that “the liner layers must not be allowed to slide relative to one another.” (p. 5-575). Modeling of slope stability using material types, slope angle and predicted friction angle gives predicted Factor of Safety ranging from 1.56 to 1.86, above the minimum required of 1.5 (Table 5.2.14-5). Questions: Again, will the synthetic geomembrane and geocomposite drainage net deteriorate over the long term? With what effects on the Factors of Safety?	GT12
4617	6.2.1 Cumulative Effects Analysis Approach:..This is a too-restrictive definition [of reasonably foreseeable]	CU02
4618	6.2.3.2.2 Cumulative Effects Assessment Area – Spatial Comments: This discussion appears to limit the CEAA to projects “located within the portion of the Mesabi Iron Range encompassed by St. Louis County (see Figure 6.2.2-1)” (p. 6-14-5) Since the NorthMet Project is geologically contained within the Duluth Complex, not the Iron Range, this is an illogical limitation. Although the Iron Range mines and extensions are obviously part of the picture, clearly the CEAA should also cover the area south and east of the Iron Range underlain by the Duluth Complex (outside of the BWCAW), and would include, for instance, the Twin Metals, Teck, Cardero, and Encampment projects. The farther-afield Kennecott Tamarack and Cooperative Mineral resources projects, located in Aitkin and Crow Wing Counties, would not appear to be spatially related to NorthMet. And the Cumulative Effects also clearly extend all the way down the main stem of the St. Louis River to St. Louis Bay.	CU01, CU05
4619	Chapter 8, Major Differences of Opinion.#5, Underground Mining Alternative: Comments: The standard economic factors of fewer jobs for shorter time, and less resource extractable are mentioned in Appendix C, but more analysis should be done on the surface impacts of underground mining versus the open pit plan. The benefits of underground mining may not be as great as claimed...However, any decrease in disturbance of the natural surface by the underground alternative would be beneficial.	ALT01
4620	Chapter 8, Major Differences of Opinion.#6, West Pit Backfill: If mining were to resume adjacent to the West Pit at the end of the Project’s 20 years, one could assume that the pit would have to be either pumped out (if left as a pond) or re-excavated (if backfilled and saturated). Question: Where would this material (especially the water) be disposed of? Again, wouldn’t this water be degraded (acidified to some extent) by contact with mineralized rock? What would be the water quality impacts to the receiving stream (Partridge R.)?	ALT03, ALT06
4621	Chapter 8, Major Differences of Opinion.Other MDOs: Comments: For many of the MDOs (e.g. #1, 7, 8, 9, 13) the Co-Lead Agencies fall back on an adaptive management approach (“If the plan isn’t working properly, we’ll fix it”). While adaptive management is essential, it depends on a high level of trust. Such actions could be necessitated well after the Closure period, and thus come under the responsibility of the State through Financial Assurance funding.	FIN05

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4635	The discussion of methyl mercury is in my judgment, the most significant inadequacy of the PolyMet SDEIS and if the project were to be approved, would be one of the greatest threats of harm from the proposal.	MERC01
4636	The hundreds of acres of peat bogs that will be destroyed in this watershed by the proposed mine, means that hundreds of acres of mercury (Hg) sequestering surface will be permanently lost to the Lake Superior watershed...Therefore bog mitigation must be brought back to this watershed. The PolyMet proposal to replace this loss of wetlands with artificially constructed wetlands in Aitkin and Pine counties having disproportionately less peat bog surface and located in other watersheds, will result in substantial mercury impacts to the Lake Superior watershed. The Sax-Zim Bog wetland mitigation plan shows that there is more than enough wetland mitigation potential in the St. Louis River watershed. (1) Therefore their wetland mitigation proposal should be rejected or modified through the Section 404 permit process with USACE.	COE01
4637	what happens to this mercury-rich peat at the mine site when it is dug up and stockpiled?... The stockpile should be capped unless moved within one year. Such mitigation measures are not discussed in the SDEIS. The SDEIS suggests such a potential major problem with methyl mercury from the mine site. In PolyMet documents under Peatland Disruption we read, "NorthMet mine site would result in a nominally estimated increase of 7- 42% in export of methyl mercury from the watershed". (2) This methyl mercury would be transported down the Partridge River to Colby Lake, both of which already have prohibitively high fish tissue mercury. Is this acceptable to the state and federal agencies involved?	MERC20
4638	The atmospheric Hg emissions from the proposed PolyMet mine and processing plant would contain three species of Hg: elemental Hg, ionic Hg, and Hg attached to particles. The ionic Hg and Hg attached to particles, which are the most chemically reactive, will be deposited locally and the local wind rose (DEIS Figure 4.6-1) shows that the prevailing winds will deposit those species disproportionately within the Lake Superior watershed. This is not what the Clean Water Act demands for the watershed. The Clean Water Act - Section 303 demands the implementation of a mercury TMDL that results in the delisting of waterbodies contaminated for fish tissue mercury. (3) Will the company have to buy "off sets" as defined by the State Mercury Implementation Plan, for any new mercury source?	MERC22
4640	Another mercury problem for these waterbodies that are already listed for fish tissue consumption advisories by the Minnesota Health Department (Colby Lake, Whitewater Reservoir and St Louis River) is the proposed water level fluctuations, due to drawdown at the Whitewater Reservoir...This SDEIS does not discuss all the reasonable design and operating strategies needed to reduce these draw downs. There needs to be an attempt to schedule the water releases and withdrawals of the three mining operations, one city and one power plant that use this river, to minimize sediment exposure and therefore methylation...(4) There needs to be a serious scientific attempt to quantify mercury methylation from water level fluctuations. That has not been done.	MERC20
4641	How will the EIS consider sulfate loading to floodplains, reservoirs and the estuary in the down river reaches where the potential sulfate loading will push concentrations towards and above 10 mg/L which is the wild rice standard and also push to levels that support higher rates of methylation?	WR156, WR162
4642	[St. Louis River estuary fishery] is where the excess sulfate from PolyMet may have its worst impact and it is not even mentioned in the SDEIS let alone analyzed to evaluate cumulative harms to natural resources. This is where sulfate levels are currently low enough so that often the lack of sulfate inhibits the sulfate-reducing bacteria that methylate mercury...Section 303(d) of the Clean Water Act demands that it be addressed...I maintain that it is a violation of the Clean Water Act to permit this mining proposal, knowing that the potential excess sulfate ions are likely to enhance methylation to the point that it would preclude the successful implementation of a mercury TMDL.	MERC01

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4643	There must be a discussion of the quantity of mercury added to these [treatment] systems from precipitation and the waste stream. All the ingredients are there for enhanced methylation in an artificially created and perpetually maintained wetland... Any of these proposed mines in water rich environments would be massive sulfate generators.(6) Will you add this discussion to the section Future Transition from Mechanical to Non-Mechanical Treatment Systems?	MERC15, WR137, WR146
4644	Currently, sulfate concentrations are often a limiting factor on mercury methylation and therefore on fish tissue mercury throughout Northeastern Minnesota...Five hundred years of sulfate loading would clearly increase fish tissue mercury and that is not acceptable in such high quality watersheds. (7) Is this acceptable to the MPCA?	MERC02, MERC08
4645	The SDEIS uses muddled modeling. The consultants have used reaches of the Partridge and Embarrass Rivers that are already badly polluted by excess sulfate, to evaluate the potential for methylation to occur...On page 6-30 we see the NorthMet sulfate load to the Partridge river averages out to 5 Kg/d and on page 6-32 the Embarrass loading of sulfate is 94 Kg/d. Do the math, that is over 79,000 pounds/y. What they should have modeled would have been impacts of all that sulfate on downstream wetland methylation where the sulfate concentration is below 8 mg/L. Such a place would be the Scanlon Dam in Cloquet at river mile 35, according to the DNR research by Lindgren and Shuldt, published in 2007...(8) Will there be any modeling of mercury methylation in these waters in the final EIS?	MERC13
4646	Most of our watersheds have a riparian flood plain that typically is inundated each spring and then the water slowly recedes...any sulfate added to this system [lowland swamps and forests] has the potential to enhance mercury methylation in the floodplain of over 100 miles of river. This issue must be addressed as indicated by the MPCA in “MPCA Strategy to Address Indirect Effects of Elevated Sulfate on Methylmercury Production and Phosphorus Availability” adopted 10-19-06.	MERC08
4647	That MPCA Strategy document defines “high risk” for mercury methylation as:...The important sentence “Rising water levels would introduce sulfate into the high-organic wetland matrix, followed by falling water levels that hydraulically deliver elevated MeHg and/or phosphate to the stream,” is the perfect statement of modeling that must be done for the floodplains and multiple backwaters and bays of the entire watershed. It has not been done in this SDEIS. (9) Will that modeling be included in the final EIS?	MERC11
4648	[T]he St Louis River and estuary are such an exceptional sustainable resource that we have to make a better effort to protect it from this new even more dangerous form of mining. The SDEIS needs data and modeling to show the risks to this resource.	WR024, WR072, WR111
4649	[W]ould it ever be possible to complete a mercury TMDL that would get the St Louis River delisted for fish tissue mercury if a “no action” decision were made and the PolyMet project was rejected? The answer is yes, because the science is showing us that what is unique about the St Louis is the significance of anthropomorphic impacts...(10) How do you reconcile the sulfate releases from this mining activity, with the mandate from Sect 303(d) of the Clean Water Act, that a TMDL process should result in delisting these waterbodies for fish tissue mercury?	MERC22
4650	the mercury and sulfates produced by the PolyMet proposal and possible future mining proposals, must be considered in light of the cumulative impacts of mercury and sulfates of all the Iron Range tributaries to a watershed. That has not yet been done. (11) When will that be completed?	MERC10
4651	The current documents consider the area of interest to be limited to the Partridge and Embarrass River sub-watersheds. The area of interest for direct, indirect and cumulative impacts of sulfates on the aquatic resources in this watershed should be the St Louis River from river mile 179, and downstream to its mouth. That has not yet been done.	CU01

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4652	Finally, PolyMet has done an inadequate analysis of the impacts of the PolyMet project on mercury releases, mercury methylation, delisting of water bodies, wild rice and aquatic species. It has artificially limited its analysis of sulfate impacts to portions of the watershed that are already at excessive sulfate levels. (12) Given the requirements of the Clean Water Act for mercury delisting and the cumulative impacts of sulfates on wild rice and game fish, is it not likely that permitting the PolyMet project would violate water quality laws as well as irreversibly harm watersheds?	WR083, WR149, WR152, WR189
4653	Adequate modeling of sulfate impacts on the lower St Louis River will be possible now that we have the data from LCMR proposal #028-A3. At the present it appears that we have a choice, either perpetual water treatment for sulfate at the Partridge River or perpetual fish tissue consumption advisories for the St Louis River..You have chosen perpetual treatment (500 years). That of course is apparently the best choice, however it is a recipe for failure. No one really believes there will be the money or political will to continue the expensive Reverse Osmosis treatment for hundreds of years... (13) Will the EIS address all the issues that will occur when we as a society choose not to continue costly treatment? Shouldn't the EIS consider all likely possibilities, such as a failure to continue costly treatment?	WR037, WR129
4654	The SDEIS proposes to release high concentrations of sulfate to the watershed during the months of September and October assuming that those are not months when wild rice is susceptible to damage from sulfate...In the meantime it is premature to speculate that the sulfate released in September and October will have been consumed and dissipated from the sediments before germination in the spring...(14) Will the state enforce the 10 mg/L sulfate criterion to any new discharges to the Partridge River for the next 500 years?	WR153, WR160
4655	Will this study [Effects of Sulfate on the Biomass and Seed Production of Wild Rice” by Bradley Dewey and John Pastor, University of Duluth, December 20, 2009] be incorporated into the final EIS?	WR152
4656	In my judgment, as a professional biologist, the water velocity, sunlight and substrate were similar at all three sites. The big difference was sulfate, and that made all the difference. How valid is the Wild Rice Standard of 10 mg/L? Put your hip boots on and walk and observe those three miles and you will know. According to all the supporting documents from PolyMet, this was never done. (16) Will this deficiency in the SDEIS be corrected in the EIS?	WR152
4657	In Sources and Fate of Sulfate in NE Minnesota Watersheds, May 16, 2008, Travis Bavin and Mike Berndt say on page 13, “however, increased sulfate loading from mining could potentially have a negative impact on many wild rice beds in the area.” According to NEPA, the area of concern for this project should extend down the estuary, where important stands still survive but could be even more threatened by the PolyMet releases. Adequate data, collecting and modeling have to be completed before this SDEIS can be called complete.	WR157
4658	The lead agencies working on the PolyMet EIS have been asked to do a cumulative analysis of the impact of sulfates on wild rice. That has not been done. Instead, the SDEIS has done individual sulfate analysis on the Partridge River by itself and the Embarrass River by itself. That is hardly cumulative. Based on the observations I have made, as well as guidance from the National CEQ, cumulative analysis must involve the St Louis River as well.	WR159
4659	With loading of sulfate projected to be as high as 5 Kg/d in the Partridge and 94 Kg/d in the Embarrass River which gives 79,497 pounds of sulfate loading per year at closure of the PolyMet operation, the area of influence will definitely extend a considerable distance down the St Louis River. In fact, because of the many other sources of anthropogenic sulfates along the St. Louis River, the “area of interest” for sulfates must go all the way down to Lake Superior. (17) Will this cumulative impact analysis be done before permits are issued?	WR111

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4660	The Schedule of Compliance, dated November 2007, between United States Steel Corporation and the Minnesota Pollution Control Agency, suggests appropriate boundaries for a detailed investigation and analysis in the PolyMet environmental review process. That Schedule stipulates that U.S. Steel shall model sulfate concentrations in the St Louis River and that “Modeling shall be done to the St Louis Bay.” (18) Since the St Louis Bay is the site of well-documented decline in wild rice production, it only makes sense that PolyMet, the biggest sulfate generator proposed for this watershed, must be required to model cumulative sulfate impacts all the way to the Bay. Will that be done in the EIS?	CU01
4661	The remnant stands of wild rice in the Partridge, Embarrass and St Louis Rivers must be protected with enforcement of the Minnesota Wild Rice Standard. Detailed investigation correlating wild rice conditions with sulfate concentrations and modeling impacts of the PolyMet project on wild rice throughout the entire watershed to Lake Superior must be included in the SDEIS.	WR054, WR157
4662	To protect wild rice and avoid unnecessary methylation of mercury, that leachate [at closure] must be and can be collected and treated. The question of course is will it be treated for 500 years? Looking at the Minntac and Dunka and Nugget Plant sulfide releases, we know it will not be treated for 500 years.	WR035, WR156
4664	In this wet environment, the DNR, Army Corp and PolyMet have to explicitly outline what practices will be implemented to kill beavers that dam up flowages and build bank lodges in dikes and ditch banks. Also, the EIS should mention that control of beaver colonies will have to be done in perpetuity.	WI06
4665	Another beaver problem that was not discussed is the impact the beaver ponds have on mercury methylation and how we can legally control these beaver colonies...If the dams are left intact, the ponds will be methylation hotspots with organic carbon, low oxygen, mercury in sediments, sulfate reducing bacteria, and in this river, a surplus of sulfate from mines and tailings basins...However, if you decide to blow those dams you will get a rinsing of methylmercury as appeared to have happen on Second Creek...Beaver can find and obstruct even very subtle flows and could turn wetland treatment facilities into a methylation hotspot. (19) This problem will be around for hundreds of years, will it be addressed in the final EIS?	MERC20, WI06
4666	I would like to address the adequacy of the models used in the SDEIS, from the perspective of the data that is used as input...there seems to be a consistent weakness that reflects lack of rigor in actual field generated data...Two poorly chosen sampling sites missed an important indicator species [Ligumia recta] that could be threatened by this proposal and the alternative proposal. Mussels are sensitive to sulfate levels. Copper sulfate is widely used to kill mussels. When that doesn't work, calcium arsenate does. (20) With all the calcium and arsenic and copper and sulfate leaching out of this mine site, the EIS must address the impacts on Ligumia recta in the Partridge River, or it will be inadequate.	AQ06, AQ18
4668	Biomes are climate dependant. As climatic zones move, biomes move. The climatic underpinnings of our present biomes are shifting to the north. How does climate change relate to the PolyMet proposal? ...the “Federal Court Requires the Fish and Wildlife Service to Analyze Climate Change Effects during ESA consultations” and “Ninth Circuit Court Requires Climate Change Analysis during NEPA”. I fail to find any reference in the SDEIS of the interaction of global climate change and movements of biomes, and especially how this proposal impacts wildlife corridors that are necessary for that movement.	AIR01
4669	That brings us to the analysis of corridors through which all the thousands of species associated with the Eastern Broadleaf Forest must move if it is going to replace the receding Boreal Forest...the SDEIS must address the cumulative effects on corridors for organisms that are much less mobile and there many of them...The SDEIS just plain doesn't do a cumulative corridor impact analysis for plant species...Because of all the proposed expansions on the Iron Range, a cumulative analysis of corridor impacts for a wide variety of impacted organisms is needed.	WI03
4670	Because of the disruption and fragmentation of wood turtle habitat by the PolyMet proposal, this threatened animal (listed as a RFSS by the USFS and listed ETSC species) will be prevented from moving into suitable habitat farther north as the climate warms.	WI01, WI02, WI03

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<b>Sender Name (Submission ID)</b>	Minnesota Izaak Walton League (38074)	
4672	We also read “a total of 94 acres of impacts are predicted in alder thicket communities”...If the wood turtle is going to respond to global climate change and move north, its movement could be blocked by a gigantic mining operation situated at the top of the most northerly watershed with wood turtles...The already severely impacted corridors 16 and 17 will be further “pinched off” by the PolyMet plant, mine and transportation corridor. In Sect. 6.2.3.2.3 we read that the project will consume 6,498 acres!	WI02, WI03
4673	These reasonable management strategies [of the St. Louis River Management Plan] must be addressed in the EIS.	PER35
4674	Of much greater importance is the myriad of other small vertebrates, invertebrates and plants with limited seed and spore dispersal that will have to make their way up this wet corridor as the climate warms and the Boreal Forest retreats. (23) The EIS must try to identify these species and design the proposal in such a way as to have the least obstruction to their access to the few remaining wildlife corridors through the Mesabi Range.	WI03
4675	The SDEIS uses an escape clause...known as the Adaptive Water Management Plan...what would be the options when the company is unable to ensure compliance with applicable water quality standards well after closure, when we lose the money and political will to continue to operate expensive WWT strategies?... It should be considered a very possible catastrophic failure of the plan... Will these horrible options be finally addressed in the FEIS?	WR130
4677	Perceived Benefits: Due to the restrictive and cumbersome access to the Federal lands at the NorthMet Project Site, the Izaak Walton League acknowledges the exchange would improve overall access for both USFS management activities, and for public use and enjoyment, should the USFS acquires these privately held lands as proposed in this exchange.	LAN11
4678	Perceived Benefits: The Izaak Walton League acknowledges a benefit is seen for the USFS in exchanging all of the Federal lands in the exchange proposal, as opposed to exchanging only those lands proposed for the mining footprint (see 3.3.3.2 Land Exchange Alternative B). Retention of the lands outside the mining footprint would result in increased management cost for the USFS, and these lands could potentially be degraded over time due the drift of large quantities of potential toxic dust and fumes produced in close proximity to the mine and processing plant.	LAN11
4679	Perceived Benefits: The Izaak Walton League acknowledges the lands involved in the exchange meet most of the Desired Condition criteria, as outlined in G-LA-2, Forest Plan, pgs. 51-52.	LAN11
4680	Perceived Benefits: The Izaak Walton League acknowledges that a reasonable effort is being proposed that would seek an even exchange of wetlands acres directly impacted by the mine, acre for acre, therefore no net loss of wetlands for the USFS estate, as specified in EO 11990 (see 3.3.1.1 Development of Land Exchange Proposal, pg.3-159, 4th para.).	LAN11
4681	Perceived Benefits: The Izaak Walton League acknowledges a benefit in receiving additional acres (72.3 acres based on GLO records, and 579.6 acres based on GIS analysis) of public land as a result of this exchange.	LAN11
4683	As stated in 3.3.2.1 para. 4, “The United States owns 181 acres of the mineral rights on lands that are not part of the NorthMet Project Proposed Action mine pits (see Figure 3.2-3)”. The plan (see Figure 3.2-3) fails to identify where these lands are located. Figure 3.2-3 does however show two forties of USFS land within or partially within the proposed mining area, and it’s unclear in the SDEIS report if the US will retain the mineral rights, and receive royalty payments for their use, or if the USFS is proposing to sell or exchange these mineral rights as part of the land exchange.	LAN04, LAN06

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<b>Sender Name (Submission ID)</b>	Minnesota Izaak Walton League (38074)	
4684	The SDEIS in 3.3.2.2 Non-Federal Lands Proposed for Exchange- para. 2, states that “PolyMet currently owns a portion of the non-federal lands proposed for exchange...And in para. 3, “There are no activities proposed on the non-federal lands...From this first statement, the Izaak Walton League believes there should be a detailed map, along with a table, listing mineral ownership or other encumbrances for each parcel (by Forty or Govt. Lot) in the exchange. The table should also indicate if mineral exploration has been done on each forty, and whether there appears to be any merchantable, recoverable minerals present.	LAN04
4685	saying there are “no activities proposed on the non-federal lands” is not the same as saying there is no potential for mining activities in the future on these lands. To avoid the possibility of going through another land exchange involving these same parcels in the future, and to protect the public interest, lands in the exchange should have little or no mineral mining potential, or if there is potential for future minerals development, the mineral rights on these private parcels should be included in the exchanged to the US. If it appears the mineral rights cannot be obtained, alternate lands containing the surface rights along with their intact mineral rights (consolidated ownership) should be offered, and those lands presently proposed in the SDEIS should be rejected as too risky.	LAN04
4686	Land Exchange Alternative B (3.3.3.2) ...The Izaak Walton League proposes adding both Tracts 4 and 5 (192.1 total acres) to Alternative B to achieve a closer acre-for-acre exchange. Once appraisals are completed an evaluation can be made of the relative values, and adjustments can be made in the parcels each is offering, so they are as close as possible in appraised value. This would meet standards established by law (Sec. 206 a.).	ALT24
4687	A review of the environmental impacts including vegetation, shows obvious differences and in vegetative types, age class distributions, as well as major a disruption to the security for threatened plant communities, and species listed as ETSC (endangered, threatened or, of special concern)...It’s assumed that this analysis includes areas withdrawn from timber harvesting such as the BWCAW, cRNA, etc., so this will distort the analysis significantly. Additional analysis using only acres available for timber management/harvesting should be done for the Final EIS, and that data should be displayed in table form and broken down by individual management units. Then a more critically analysis of these changes can be made...cover type changes in the proposed exchange will have little short or long term impact on overall timber market supply, nor will it serve as any economic stimulus, since both the Federal lands and the non-Federal lands were capable of contributing to the local wood basket, with neither in a “no-harvest” status and each having an equal opportunity for current and /or future harvests.	VEG01, VEG03
4688	A review of the truly unique forest components found on the Federal lands is much more concerning than a shift in cover types. There seems to be a somewhat callus lack of due regard for the eleven (11) ETSC species that will be lost, including 10 that are found nowhere else on the Superior National Forest, along with the loss of three imperiled or vulnerable native plant communities that also may be found nowhere else on the Forest, plus a 6100+ acre loss in sites ranked as MCBS High Biodiversity Sites...these losses would be significant to the Forest and the environment, and a serious reconsideration of this exchange is warranted. Even the loss of the MCBS site will result in a permanent loss, since a post-mining site, even following reclamation, will never be the same rich forest as the one it’s attempts to replace.	VEG01, VEG02, VEG03
4702	The SDEIS fails to include sufficiently detailed information about the types of aggregates found, along with their estimated volumes and values, on each of the non-Federal tracts. The SDEIS has also left unresolved an largely unexplained the encumbrance questions in the titles of ownership for aggregate (sand, gravel, stone, etc) resources, as well as a reservations of timber rights in Tract 3...Information should be provided in a table in the Final EIS clarifying the types, and estimated volumes, and values of the aggregates, and it must settle the issue of ownership of all aggregates following the exchange. If aggregates are being reserved on any of the private parcels, this should be considered as a cause for rejecting a parcel prior to the exchange. If the USFS chooses to continue the exchange, and chooses to give up the rights to these aggregates in exchange for considerations in the land appraisal values, it should also then clarify in the Final EIS their position on the prohibition of “surface mining”. Otherwise, management by the USFS of the surface estate will again be in conflict and subject yet again to another land exchange.	LAN03

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4703	There also needs to be a more detailed explanation than what is provided, concerning the reservation of timber rights in the title on Tract 3, in 5.3.1.2.5 pg. 5-586. This would seem to be at odds with both USFS management of the surface estate and the Weeks Law acquisition status, which will be transferred to the exchanged lands. If in fact the timber rights are being reserved and are unavailable for USFS management, this tract must be withdrawn from the exchange.	LAN04
4704	The Izaak Walton League also differs with the SDEIS conclusion dawn in 5.3.1.2.5 pg. 5-587 that the exchange will resolve the conflict “by exchanging the high-risk federal lands for predominantly low-risk non-federal lands. The non-federal lands are predominantly “moderate-risk”, due to the fact that Tract 1, which comprises almost 70% of the acreage in the exchange, is considered at moderate-risk for both “conflict” and “quality of title”.	LAN04
4705	Finally, in regards to title encumbrances, an issue that will need some study and resolution is the conflict between outstanding severed aggregate rights in the northeastern portion of Tract 1, and the plan to extend cRNA status to the Loka Lake cRNA, also located in the northeast corner of Tract 1. (See pg 5-586 2nd para. and pg 5-610 4th para.) Gravel extraction and a cRNA at the same location seem incompatible.	WILD01
4713	The rejection of alternative 3.3.3.3.6 Underground Mining Alternative fails to take into consideration language found in both the deed and the law during the acquisition, which transferred surface ownership of these lands to the Federal government... statements protecting and limiting damage to the surface estate, and the purposeful inclusion of language discussing underground mining, make it evident that the rights of the surface owner to enjoyment of the land and providing limitations under which the owner of the reservation (mineral rights) must abide in any and all types of operations when exercising their rights to the minerals found within, were central to the acquisition of these lands. Therefore, an open pit mine was considered incompatible with the rights of the surface owner, the Federal government. In order to exercise their mining rights, there can only be an underground mine.	LAN04
4717	EO 11990 specifies a “no net loss of wetlands” for compliance. While the USFS is balancing the wetland losses with gains within the Forest, the State of Minnesota would still lose a significant number of acres of high quality wetland at the proposed mining site... None of these indirect wetland loses are calculated in the land exchange, nor are there proposed wetland mitigations for these types of losses. So, Minnesota will still lose 7000 acres of wetlands, even after mitigation for the direct impacts. Indirect impacts must be addressed in the final EIS, to achieve a “no-net loss of wetlands”, in both the exchange and in the wetland mitigation strategies[.]	WET14
4718	The Land Exchange fact sheet extols the benefits of this exchange with multiple [bullet points for various resources]...All of these resources already exist, and are serving the people of the State of Minnesota, so there is no real gain in this exchange for the citizens of the state...they should not be touted as a “Net increase”, but should be viewed as an existing resource... Unfortunately, all of these natural resources are being viewed from inside the USFS silo, when a more appropriate view would be from the balcony, where the whole picture of Minnesota can be seen. The citizens of the state would be better served if the SDEIS dealt with the project’s cumulative impacts resulting from this proposed land exchange.	LAN01
4720	Provisions of the Weeks Law, particularly Sec. 9 and 11, seem to impact the decision making in this exchange, but neither section are addressed in the SDEIS...This [Section 9] could be interpreted to say that the USFS as surface owner may establish and publish rules and regulations under which the subsurface owner must operate, and that all actions by the reserve owner must follow these rules and regulations. Clearly, the original intent of Congress in passing the Weeks Law was for these lands to be permanently reserved, held, and administered by the USFS. To do otherwise is to disregard the intent of the Law.	LAN02

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4721	As a Federal agency it is the responsibility of the USFS, the EPA and the USACE to uphold and protect all provisions of the Treaty of 1854...The land exchange would eliminate forever the potential use of the existing Federal lands for hunting and gathering, and exchanging the non-Federal lands for Federal lands, would still result in a loss of acreage on which to carry out these rights within the ceded Territory... Therefore, the Final EIS must address the issues stated here, such that the Final plan and its implementation do not infringe upon any of the rights of the Tribes.	CR01
4722	The SDEIS gives inadequate consideration to the “No Action Alternative” of the land exchange. The No Action Alternative must be reconsidered because: •The mining proposal as currently outlined in the SDEIS fails to meet multiple environmental regulations which would lead to destruction of the land and pollution of the waters for many centuries •It fails to protect the rights of the tribes as guaranteed in the Treaty of 1854 •There is inadequate review of human health impacts at the mine, in surrounding communities, and in the watersheds below the mine  •There is inadequate review of cumulative impacts resulting from all previous and existing mines, and for all proposed mines that could be permitted over the next 10-15 years in this watershed •The economic analysis was biased by only modeling the benefits, with inadequate analysis of the practical projects costs •The intent of Congress in acquiring the lands within the Superior National Forest under the Weeks Law were to protect the waters and promote the growth of forests, in perpetuity •The exchange only marginally improves the conflict in the severed estates, and fails to fully resolve this conflict in the future because of uncertainties over aggregate rights on the non-federal lands •Overall, the sum of these failures constitutes a failure to meet the obligation by law, that the public benefit must be well served by the exchange	LAN01, LAN02, LAN05
4723	under the “Purpose and Needs Statements” 1.3.2, there are several references to “resolve this fundamental conflict”, which we must assume is referencing the rights of the mineral estate and that of the surface estate. Under 3.1.2 it states “PolyMet leases the NorthMet Deposit’s private subsurface rights. However, under the Weeks Act of 1911, the USFS is restricted from allowing, by decision (see 5 above), surface mining on Federal land, such as that purposed by PolyMet.” It appears the “conflict” is a result of actions knowingly and intentionally taken by PolyMet that are in direct conflict with the long-standing decision by the USFS to protect their surface interests by not permitting surface mining. There is no discussion in the SDEIS of PolyMet choosing to relinquish its lease of the NorthMet site to resolve “the conflict”.	NEPA04
4724	The Final EIS will need a thorough reconsideration of the “No Action Alternative” including an expanded discussion of the rejected underground option. Such an analysis should result in a more thorough examination of the economic services provided by the existing surface acres at the mine site...If accommodating the broader responsibilities the Co-lead agencies are charged with meeting under the Weeks Act, and, under the DNR mission statement, results in an unprofitable project currently, it may be best in the long run to defer development of the proposal until a date when the technology exists to accommodate return on equity in the marketplace, and, achieve the smaller footprint.	ALT14
4725	The main reason given for establishment of the Superior National Forest and the purchase of Federal lands through the Weeks Act was to protect the headwaters of the St. Louis River. The proposed land exchange and destruction of wetlands in these headwaters is a violation of the intended purpose of these Federal lands...As a result, our citizens will lose the watershed protection values that were intended by the establishment of the Superior National Forest...We question the validity and wisdom of this land exchange because it will nullify the protection of watershed values in the Partridge and Embarrass rivers; the lands obtained through the exchange may not be covered by the Weeks Act, and it will set a bad precedent that opens the door for future land exchanges.	LAN02
4726	The land exchange sets a bad precedent and it is unknown how many additional land exchanges may be needed for future mine proposals...We question the validity and wisdom of this land exchange because it will nullify the protection of watershed values in the Partridge and Embarrass rivers; the lands obtained through the exchange may not be covered by the Weeks Act, and it will set a bad precedent that opens the door for future land exchanges...Before the PolyMet exchange is approved, we would ask that the Superior National Forest evaluate how many more land exchanges may occur, and determine what the cumulative impacts would be upon watershed values and land ownership patterns in the Forest.	LAN02

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4727	Allowing the loss of so much forest and wetland cover in these headwaters and the potential impacts to their hydrology and water quality are counter-productive to the MN DNR's mission of long-term protection of the state's surface and groundwater resources...We ask that the DNR follow the recommendations of their own report and evaluate the PolyMet project in a watershed context...Based on the extent of forest and wetland destruction, the likely changes in groundwater hydrology, and the potential for water quality impacts, as documented in the SDEIS, it seems clear that the PolyMet project would not meet these standards for watershed protection.	WR195
4728	Too much wetland and stream area will be destroyed or impacted by this project to be considered an environmentally responsible mine...These wetlands are located in the headwaters of the Partridge and Embarrass rivers where they play an important role in maintaining the health of these watersheds. Many of the wetlands are acid peatlands that are perched above the shallow water table and depend upon precipitation rather than groundwater for their water supply. The functions and values of these types of wetlands are very difficult to mitigate or replace.	WET05
4729	It is evident from reading the SDEIS that the extent and severity of these indirect impacts are basically unknown and difficult to predict. The SDEIS says that it was not feasible to model the effects of mine dewatering on wetlands due to the complexity of the bed rock and soils at the mine site, and the wide variety of groundwater flow rates through these soils and fractured bedrock. As a result the indirect wetland impacts will have to be determined by monitoring after the mine is permitted. This leaves us with a huge question mark about the ultimate extent of wetland impacts that will result from the mine.	WET01
4732	The ecological quality of the stream and wetland complex that would be impacted by this project is very high and deserves the highest level of wetland mitigation...All of the above factors lead us to conclude that the diversity of wetland habitat and river systems found around the NorthMet project are providing significant ecosystem services. We believe that they should be considered a high-quality wetland complex, and should receive the highest level of protection and wetland mitigation possible.	WET24
4733	However, due to the large area and high quality of wetlands in the project area, we believe that the known wetland impacts are still far too great and the potential for unanticipated impacts is significant. We recommend that underground mining and the placing of as much of the reactive waste rock as possible back into the mineshafts be given serious consideration and evaluation in the Final EIS. This option should not be rejected solely on an economic basis...The underground mine option could substantially reduce the level of wetland and water quality impacts in the headwaters of the St. Louis River, and may eliminate or reduce the need for a land exchange.	ALT01, ALT13
4736	The proposed mitigation does not compensate for the loss of wetland functions and values in these headwaters...mitigation will occur outside of the St. Louis River watershed and fails to compensate for the watershed functions and values that will be lost in the Partridge and Embarrass rivers, which had been protected by the Weeks Act...Because of the high-quality of the wetlands on the Mine Site, the difficulty in restoring or creating bog and forested wetlands, and the lack of adequate mitigation within the impacted watersheds, we would ask that the Corp of Engineers require a mitigation ratio of 2:1 for mining impacts to these wetlands.	COE12
4737	analysis [of fugitive dust impacts on wetlands] seems too conservative and does not appear to consider the huge volumes of dust that would be released by blasting activities which would almost certainly cast a significant dust cloud downwind of the mine in the prevailing wind directions (NW and SE of the mine site). We would like to see a description and evaluation of how blasting activities might affect dusting of wetland vegetation in the Final EIS.	WET11
4738	The potential toxic effects of sulfur and heavy metals upon wetland vegetation from fugitive dust are not adequately considered or evaluated...The SDEIS also does not appear to consider the potential toxic effects that sulfur or heavy metals in the dust might have on wetland vegetation... We would like to see an analysis of this chemical impact upon wetland vegetation, and an explanation of the potential toxic impacts to vegetation by sulfur and heavy metal contamination from fugitive dust.	WET11

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4739	It is not accurate to use the natural range of variation of stream levels as a way to measure potential impacts to riparian wetlands from long-term water level changes caused by mining...We also question the analysis of the level of impacts expected to wetlands in the riparian zone of the Partridge River...Water levels can vary dramatically from spring highs to summer lows and can be nearly dry during droughts. Saying that the changes in average annual flow will be within this dramatic range of variation leaves us with little confidence that the abutting wetlands would not be significantly impacted.	WET08, WR183
4740	The failure of state agency regulation of iron and taconite mines to correct current pollution issues does not give us confidence that future problems with sulfide mines will be adequately addressed...This leaves us with little confidence that a new mine in the same general location with much larger quantities of reactive rock can be built and managed without causing significant damage to wetlands, water quality and the surrounding environment.	WR023
4742	Page 5-16 states, "Because the NorthMet Project area is located in the Lake Superior Basin..." The Great Lakes-St Lawrence River Basin Water Resources Compact (the GL Compact) applies. The GL Compact includes the St Louis River.	PER27
4743	SDEIS Executive Summary (ES) Page 39 "Four additional state-listed species -..." Does not include moose, recently listed as a species of Special Concern.	WI01
4744	Page 4-201 states on Canada Lynx, "...not listed as an ETSC species in Minnesota..." Lynx are listed as a species of Special Concern in MN.	WI01
4745	Page 4-204 lists Wood Turtle as "globally vulnerable" and "imperiled in MN". Wood Turtles are listed as Threatened in MN which confers special status for takings on them similar to that of Endangered Species. The St Louis River and its tributaries provide some of the most important nesting sites and populations of Wood Turtles in the state.	WI01, WI02
4746	Page 4-207 lists Black-backed Woodpecker, Boreal Owl and Spruce Grouse as Species of Greatest Conservation Need (SGCN) in MN. All are dependent on mature coniferous forest.	WI01, WI02
4747	Page 4-212 mentions that the LTVSMC Tailings Basin attracts waterfowl, loons, etc but makes no mention of the ingestion of contaminants as an issue for these birds or other predators consuming them that are higher on the food chain.	WI04
4751	Since many of these plants are state-listed as endangered, threatened or special concern due to their rare status it seems implausible that removal of even 1 percent of their known populations could possibly be considered as sustainable resource management. It constitutes a "taking" under state law, and is completely unacceptable. Simply stating that these are small populations or that other populations may be located elsewhere in the future is no guarantee of their continued existence on the landscape and is a loss of natural resources to the people of MN for generations.	VEG01
4752	SDEIS Executive Summary (ES) Page 35 states, "The NorthMet Project Mine Site drains to the Partridge River and the Plant Site drains to the Embarrass River. Both rivers are tributaries to the St Louis River, which flows to Lake Superior." The GL Compact language on protecting these finite resources applies here as well.	PER27
4753	Page ES-37 Several of these wetland types make up critical habitat for several of the ETSC wildlife species mentioned in the Wildlife portions of the SDEIS. A mitigation ratio of more than 2:1 should be used for replacement of these state and federal resources.	WET04
4754	Page ES-50 states, "4,016.3-acre decrease in vegetation and wildlife habitat in the NorthMet Project area." and "Wildlife corridors at and adjacent to the NorthMet Project area would be affected through the reduction of access to these corridors." In light of increasing climate change stressors on these already rare populations, reducing the ability for these organisms to migrate through actual individual animal movement or plant seeding and genetic distribution is an unacceptable loss to our state's natural heritage.	WI03

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4755	Page 4-46 states, "...approximately 90 percent of the wetlands within the Mine Site are ombrotrophic.... Again, these types make up critical habitat components for some of the ETSC species listed in the Wildlife portions of the SDEIS and will either be completely eliminated by the proposed action or adversely impacted directly or indirectly through hydrologic impacts (water level fluctuation and ground and surface water contamination).	WI02, WI06
4756	Page 4-133 states, "Further downstream, most of the St Louis River is also listed for "mercury in fish tissue" impairment..." There is no mention of limiting the further contributions of mercury to the system and the implication seems to be that the rivers are already impaired so any additional mercury loading is not a problem. This is unacceptable.	MERC02
4768	These mitigation projects [Aitkin, Hunckley, Zim] assume that permitting agencies will allow "restoration" and "preservation" credit for "restoring" and "protecting" coniferous bog and swamp that are already functioning as wetland communities.	WET04
4769	Page 5-320 describes the site near Floodwood that was originally proposed for wetlands mitigation efforts and credits but later dropped for several reasons. This site is similar to the proposed mitigation site at Zim... There has been no change in the level of peat mining operations or the forest practice of tree-topping in St Louis County since that time so why would mitigation credit be given for the proposed Zim site with similar vegetation, plant community and resource use history?	WET06
4770	Again, the implication is that only a small percentage of these state-listed rare plants and "imperiled" communities will be impacted through this project and that other populations, "may be found" at some unspecified point and place in the future. Baseless, illogical rationalization for destroying these state and federal resources.	VEG01
4771	The SDEIS goes on to describe that there will be a decrease to the federal estate of 6,142.7 acres of areas High Biodiversity Significance and an increase of 767.9 acres in areas of Moderate Biodiversity Significance. By their definition, areas of High Biodiversity Significance are "the best of the rest" and areas of Moderate Biodiversity Significance are "the best of what's left". Why should the citizens of MN settle for "what's left" at the expense of some of the best?	VEG02
4772	The document goes onto describe the impacts of the proposed project on area natural resources (wildlife, native plants and plant communities) and generally minimizes the impacts to these finite, rare, imperiled, and diverse organisms and habitats. These are public resources as well as important habitat elements that "will be permanently lost". Coniferous bogs and swamps, as well as shrub swamps, are critical habitat components for moose (calving, thermal cover and feeding areas) and several other ETSC and SGCN species. These plant community types are almost impossible to re-create through mitigation techniques. The areas of Biodiversity Significance are just that. They cannot be recreated or restored in our lifetimes or even our grandchildren's lifetimes. These losses to our water resources and natural heritage, as proposed, are unacceptable and must be mitigated at the highest levels or this project should not proceed to permitting.	PD01
4773	In the review and discussion of the present SDEIS, Izaak Walton League is encouraged that the SDEIS is improved. New subjects are added. Adaptive management has potential merit. However as noted, many significant mitigations remain unclear. Izaak Walton League does appreciate the hard work involved in the SDEIS. Three public meetings have been well conducted and well attended. Passionate and well-informed comments have been offered. Friends and neighbors with very different perspectives have conducted themselves admirably on average. There is a good deal of information in the SDEIS. However, we believe that there is more work to be done before the NorthMet SDEIS becomes final.	NEPA15, NEPA17
4775	Our overall conclusion is that the SDEIS for NorthMet is significantly deficient in meeting its assessment, environmental disclosure and public trust responsibilities.	NEPA09

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4776	Slope Stability: Modeling results for Factor of Safety during construction and long-term closure are given in Table 5.2.14-1; they appear adequate. Liquefaction: Potential for this extreme hazard was evaluated under various scenarios, showing that the “design would meet the minimum Factors of Safety deemed acceptable by the Co-Lead agencies” (see Tables 5.2.14-3, 5.2.14-4) However, those minimum Factors of Safety seem dangerously low to this reviewer.	GT02
5106	MN DNR Director of Lands & Minerals has recently testified before the House Environment, Natural Resources, and Agriculture Committee (2-11-14) that it is in a position to successfully regulate PolyMet, secure adequate financial assurances, etc. We have good reason to doubt the confidence represented by MN DNR on that day and believe it is a critically important issue.	PER06
5137	5.2.14.2.2 Tailings Basin Liquefaction: Potential for this extreme hazard was evaluated under various scenarios, showing that the “design would meet the minimum Factors of Safety deemed acceptable by the Co-Lead agencies” (see Tables 5.2.14-3, 5.2.14-4) However, those minimum Factors of Safety seem dangerously low to this reviewer.	GT02
5140	6.2.2.1.21 Speculative Actions: Comment: Although the mineral resource projects listed here have not developed to the public proposal or scoping stage, a great deal of drilling, sample analysis and other exploratory work and engineering studies have been invested in many of them, and proposed development is likely within the active period (40 years?) of the NorthMet Project. At the least, this Chapter should show on maps the mineral holdings of each of the eleven companies or projects mentioned under Speculative Actions.	CU02
5155	All of the new sulfate produced in the proposed mine waste heaps, tailings basin, sulfuric acid mist and acid rain, has to go somewhere. Of course, it is headed downstream to river reaches and associated wetlands that are lower in sulfates... That is correctable and PolyMet can either exacerbate the problem and push the sulfate impact all the way to Lake Superior or improve the situation, depending on how long they treat or don't treat their leachate.	WR036, WR111
5181	As mentioned earlier, the SDEIS proposes to release high sulfate loading during the months of September and October when in fact, the MPCA is in the process right now of determining when sulfate releases do actually raise the sediment sulfide levels such that it damages wild rice roots.	PER10, WR152
5188	Under the Law (The Act of March 1, 1911 aka the Weeks Law) the lands were purchased with appropriations allocated for the express and stated purpose of “protection of the watershed of navigable streams, and ... for the acquisition of lands for the purpose of conserving the navigability of navigable rivers.” These monies were spent with the chief intent of protecting the waters and the timber within the watershed. While subsequent revisions to the original law (16 U.S.C. 516) have been written to permit land exchanges of Weeks Law lands “When the public interests will be benefitted...”, it is easy to see that this proposed exchange fails that test, because it negatively impacts the very waters the Law was passed to protect, and would lead to both public health and the environmental harm lasting for hundreds of years or longer. Therefore this exchange does not benefit the public and must be reconsidered.	LAN02
5189	Page 4-210 mentions moose declines and low populations but does not discuss the implications of habitat loss particularly summer and winter thermal cover provided by mature conifer forest and forested wetlands.	WI01, WI02
5350	These [SDEIS wetland impact] numbers clearly suggest that a substantial area of additional wetland impacts can be expected beyond that destroyed by construction. And if the SDEIS has underestimated the assessment of impact, the additional wetland loss could be huge.	WET24
5351	Also, since suitable wetland mitigation has not been found for these watersheds, we would ask that the regulators request that PolyMet use measures in addition to wetland mitigation to replace the lost watershed values. This could include measures such as water retention ponds, shore land buffers, and other “green” technology to collect and store runoff in these watersheds.	COE01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Minnesota Izaak Walton League (38074)		
5352	We are concerned that this language is too vague and does not provide enough assurance that mitigation for indirect impacts would actually occur.	WET01
5353	From information contained in the SDEIS it seems likely that at a minimum another 500 or more acres of wetland are likely to be significantly affected by so called “indirect” impacts. We would like to see up-front wetland mitigation be required for these additional impacts or at least a demonstration in the Final EIS that sites have been identified and secured where this mitigation could take place when needed.	WET01
5354	We would encourage the regulatory agencies to focus wetland mitigation efforts to wetlands that have been completely or significantly drained, or significantly modified by agricultural practices... We would like to see an independent agency, such as BWSR, be given the task of monitoring and determining the mitigation required for these mining projects.	COE01, COE06
<b>Sender Name (Submission ID)</b> Minnesota Nurses Association (40485)		
5462	The co-lead agencies should conduct and include a health impact assessment (HIA) in the Environmental Impact Statement to fully analyze the public health implications of PolyMet's proposed mine... A HIA would integrate human health into the environmental review for the PolyMet NorthMet proposal, allow consideration of mitigation measures, and involve the community in planning for the project.	HU01
5862	The PolyMet NorthMet Supplemental Draft Environmental ImpactStatement (SDEIS) contains inadequate analysis of the impacts onpublic health from the proposal.	HU01
5865	The [requested] HIA should include examination of all aspects of public health affected by the proposal, including analysis of the social determinants of health.	HU01
<b>Sender Name (Submission ID)</b> Minnesota Power (42892)		
10045	there’s not a better place to develop a responsible mining project in MN or across the US, in that the minerals of interest in the PolyMet project will be mined within a historic mining district near old Mesabi, between the mining communities of Hoyt Lakes and Babbitt, MN.	LU07
10069	I know first-hand how critical, quality mining, maintenance and spin off jobs are to the East Range economy. They provide basic living essentials for hundreds of families and I look forward to the prospect of job creation that PolyMet brings.	SO10
18279	The sophisticated modeling and engineered solutions proposed by the agencies and the Company, in my professional judgment, will enable PolyMet to perform at or beyond the stringent state and federal requirements to protect water quality on all fronts.	PER34
18280	In fact, overall, the project will reduce background concentrations of sulfates and mercury, not increase them.	WR190
18281	I have reviewed the proposed land swap proposal in the SDEIS and found it to be a sensible means to improve the compatibility of the land uses.	LU01
18284	Moreover, the high quality metals that NorthMet will produce represent important new, domestic sources of ESSENTIAL copper, nickel and other precious metals that fuel modern life.	NEPA05
18287	I would like to compliment the cooperating agencies and lead agencies for their high quality work in engaging the public and other interested stakeholders. I personally believe 90 days is more than enough time to properly review, consider points of view and submit comments into the SDEIS process.	NEPA17

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Minnesota Power (42892)		
18973	The sophisticated modeling and engineered solutions proposed by the agencies and the Company, in my professional judgment, will enable PolyMet to perform at or beyond the stringent state and federal requirements to protect water quality on all fronts. In fact, overall, the project will reduce background concentrations of sulfates and mercury, not increase them.	PER34
18974	Further, there's not a better place to develop a responsible mining project in MN or across the US, in that the minerals of interest in the PolyMet project will be mined within a historic mining district near old Mesabi, between the mining communities of Hoyt Lakes and Babbitt, MN.	PD28
18975	Moreover, the high quality metals that NorthMet will produce represent important new, domestic sources of ESSENTIAL copper, nickel and other precious metals that fuel modern life.	SO10
18976	Through the SDEIS's sound science and downstream permitting, we can and will develop sources of new domestic metals while creating VITAL employment families rely upon to have open and equal access to the region's precious cultural, scientific and recreational treasures!	SO10
18977	The process has been rigorous and thorough.	NEPA16
18978	Just as the iron ore mined during the 19th, 20th and now the 21st centuries was the key to many critical elements of society, the non-ferrous metals to be mined at PolyMet will be used for electrical components, cell phones, computers, and catalytic converters-products critical to all of us in the 21st century and beyond.	NEPA02
<b>Sender Name (Submission ID)</b> Missy Bailey (43597)		
15114	Please help us preserve the waters in the BWCA. There is no other place like it in the United States and my hope is it will continue to be enjoyed in its pristine state by many generations to come.	WILD02
<b>Sender Name (Submission ID)</b> Mitch Gunderson-Palmer (10754)		
608	My major concern with this proposal is the possible impacts on groundwater.	WR107, WR108
609	Any short-term economic gain from the mine would be worthless to us if it contaminated our water and environment.	SO01
<b>Sender Name (Submission ID)</b> Mitchell Brunfelt (43580)		
12301	I believe that the Polymet draft EIS demonstrates and proves that the science is there to proceed forward with this very worthwhile project and that it can be done while at the same time protecting the local environment.	NEPA16
15134	the site of Polymet's proposed processing facilities (utilizing the former LTV property), and the area surrounding those facilities, already is an existing brownfield, industrial site. Polymet's proposed project will put that site back into a productive use and a use which (with modern day advancements in technology, science and engineering) will likely be more environmentally sound than the existing state of that site.	PD28
<b>Sender Name (Submission ID)</b> MK (39679)		
7370	[This Project] will give many people jobs & help our local, state & federal economy. Also I read there is a kickback to MN schools fund with the use of the land!	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> MK Smith MD (50005)		
12985	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> mlanger@goldengate.net (44518)		
10659	Please do not allow mining in the BWCA. It is a fragile environment and will suffer under this kind of mining	WILD02
<b>Sender Name (Submission ID)</b> MN Chamber of Commerce (42906)		
5515	...the modeling time frame of 200-500 years should be clarified that it was used directly for modeling and not for actual water treatment at the proposed project.	WR035
6309	It is the view of the Minnesota Chamber of Commerce that the SDEIS is complete and should be deemed adequate. All issues that are of concern, including air emissions, water quality and quantity, wetlands, and financial assurance among others have been adequately addressed in the document. The information is accurate, environmental impacts that have been identified and are adequately addressed or have been properly mitigated and all reasonable alternatives have been analyzed.	NEPA16
<b>Sender Name (Submission ID)</b> Molly BARTZEN (47092)		
16566	The damage this mine could cause could last until my great grand children's generation. The costs outweigh the benefits. PolyMet will no be creating long-term jobs for Minnesotans or benefiting the communities they could potentially destroy.	SO01
<b>Sender Name (Submission ID)</b> Molly Bugamelli (35573)		
11278	Threats to the Great Lakes impact not only my home state of Michigan but all of the surrounding states. So much depends upon maintaining the health and integrity of these waters for tourism, the enjoyment of future generations and the surrounding ecosystem.	LU06
11280	The implications of so much that is done in the name of profit to our waterways is only beginning to be understood. I have watched throughout my lifetime as beaches, lakes and rivers have become unsafe for swimming, their fish unsafe for eating and the environment toxic to the wildlife that have become dependent upon us for their future survival.	WI04
<b>Sender Name (Submission ID)</b> Molly Johnston (45875)		
10280	I have not seen evidence that PolyMet will be able to responsibly (Financially or environmentally deal with "accidents" that will happen whether true bizarre accidents, or acts of human negligence.	FIN01
<b>Sender Name (Submission ID)</b> Molly Streiff (54838)		
18818	Because sulfide mining creates acid mine drainage, countless bodies of water including our beautiful Lake Superior will be negatively affected.	WR001, WR023, WR111
18821	[Acid mine drainage will] kill the natural wildlife and plants, ...[and] will increase the risk of cancer & other illnesses for us humans.	HU03, VEG06, WI04
18822	Since [the sulfide mining and acid mine drainage] is close to tourist attractions, it will impact the economy	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Monaya (40726)		
6664	How can a few hundred jobs for 20 or so years compare at all to 500 years of pollution? UWe should be encouraging green energy industries and getting jobs related to those up to the people on the range rather than risking our most precious resource – our water ...	WR115
<b>Sender Name (Submission ID)</b> Morgan Ekmark (46013)		
10409	I full heartily support Polymet. Here are a few reasons why; 1. Increase in Jobs.	SO10
10414	I full heartily support Polymet. Here are a few reasons why; 2. Polymet has worked hard in improving its environmental impact. (Environmental Impact Statement (EIS), DNR, 2013).... 3. Polymet plans on "refurbishing" the land that will be mined after the project is completed.	NEPA16
<b>Sender Name (Submission ID)</b> morgii.muraski@yahoo.com (44290)		
12769	The people of Minnesota have no assurance that Polymet will even be in operation hundreds of years into the future (when the clean up would still be occurring).	FIN01
12770	Polymet has no experience dealing with mines of this sort, and building a mine of this magnitude as a "test run" could have devastating consequences. ...The domineering nature of the proposal is in itself alarming, and Polymet's horridly evident lack of experience does nothing to quell the fears of those who will be impacted by it for hundreds of years to come.	PD23
14872	this mine is essentially an assurance that the Boundary Waters, Minnesota's ecological crown jewel, will be urbanized or destroyed in part.	WILD02
14873	It is clear that Polymet will glean an incredible profit from the mine, but it must be realized that this compay boom comes at the expense of stability in neighboring rural communities. ...Polymet is preying earnestly on those that are less economically established, and this portrays a devastating lack of propriety on the part of the company.	SO02
<b>Sender Name (Submission ID)</b> Moriah Ulbricht (54355)		
18196	How does this affect the BWCA? This is my main concern about the mining and it's how I knew about it in the first place. ... we all know that harmful toxins can be carried away from the mining site by streams or rivers. So, in thinking that the worst will happen, does the site affect the BWCA in any way shape or form?	WILD01
18197	Does the mining site affect any other water bodies?	WR111
18198	Do the mine's benefits outweigh the disadvantages? ... I feel as though after the 20 or so years of mining; in addition to the 18 mos. of preparation, it would leave about 6,700 acres of land stripped and demolished. Including 913 acres of wetlands that would be permanently lost. That sounds like an awful lot of lost land and it leaves me to wonder, is it worth it?	SO01
18199	I am also pleased that PolyMet wants to minimize their effect on cultural resources.	CR07
<b>Sender Name (Submission ID)</b> mose Picard (6162)		
11999	I am worried about our ecosystems, wildlife will be greatly impacted	WI01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> mose Picard (6162)		
13676	Wildlife is not something for us to look at and think it is pleasant, and sacrifice it for short term profit, for short-term jobs.	SO01
13681	I am worried that Polymet will poison our waters, our animals, our plants, which has been food and medicine for countless generations.	VEG06
<b>Sender Name (Submission ID)</b> Muriel (43561)		
8159	The everlasting detriment far outweighs the prospect of any (fleeting) happy corporation stockholders and the temporary jobs	SO01
<b>Sender Name (Submission ID)</b> Myra Arnold (4070)		
851	I think we should not go ahead with this project until Polymet comes up with a better plan to monitor and maintain the toxic seepage caused by the mine. So far the mine plan requires an absurd and unachievable level of monitoring and maintenance for many centuries to come.	PD03
852	Taxpayers could be left with enormous clean-up costs, polluted water and land and economic disaster.	FIN10
854	The natural resources in the watershed of Lake Superior are too precious of a national treasure to jeopardize their well-being for centuries to come.	CU01
<b>Sender Name (Submission ID)</b> Myra Theimer (47655)		
7681	I am concerned that the PolyMet SDEIS does not reveal the effects of fibers in the rock at the Mine Site. If these fibers are toxic and are dug up and released into the air it could pose a significant health risk to Minnesotans that breathe the air either locally or carried in the wind.	AIR03
7684	I can't see how the project can estimate and protect various pollutants, such as mercury, from eventually negatively affecting the ground water.	WR056, WR125, WR158, WR189
7688	I think this project and the other projects that are being proposed combined will certainly have a negative effect to human health.	HU03
<b>Sender Name (Submission ID)</b> Myrl Moran (58024)		
19872	I think the risks far outweigh the benefits.	SO01
<b>Sender Name (Submission ID)</b> n. w. hyslop (44312)		
14861	while we may only get a few decades-worth of commercial benefit from the mine, minnesotans may be dealing with environmental consequences ranging from water contamination and species dislocation for hundreds of years.	SO01
<b>Sender Name (Submission ID)</b> nalco (39268)		
7134	The effects of sulphite mining and the potential for polluting the lakes, rivers, underground water tables and the wild rice beds in our state worries many of us.	VEG04, VEG06, WR156

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> nalco (39268)		
7158	The concerns of many people that I have talked with are that too often officials and agencies have assured us that all the safeguards and sure fired protections are in place on projects such as this. However, we have come to realize that through the use of official variances, oversights and just human error the environment has been degraded and compromised.	PER06
7168	I believe it is time that we consider the environmental impact of this type of mining, weighing the short term unsustainable gains as opposed to becoming true stewards of our environment.	SO01
<b>Sender Name (Submission ID)</b> Name Illegible (54123)		
15989	All this just so someone with lots already can get more?	SO02
<b>Sender Name (Submission ID)</b> Nan Corliss (2757)		
12294	I don't care how much money a company would put aside for clean up. This does not do anything for clean water and land, a healthy environment or a bright future for tourism or businesses which have to reside and make a living in a damaged area for years.	PD25
13454	[The Boundary Waters] area is a treasure to our state and country and a mine that will pollute the waters and land for years, a mine where accidents WILL happen and leaching WILL take place and polluted waters will stand and seep and damage for many years is unthinkable.	WILD02, WR111, WR129
13846	The area is a treasure to our state and country and a mine that will pollute the waters and land for years, a mine where accidents WILL happen and leaching WILL take place and polluted waters will stand and seep and damage for many years is unthinkable.	WR070, WR115, WR195
<b>Sender Name (Submission ID)</b> Nan Langevin (17876)		
1994	does anyone actually think that a company entity will last [500 years]? And if they did, that they would cheerfully and willingly pay to clean up their putrid, toxic mess for such an unimaginably long time frame?	FIN01
1995	People in Northern Minnesota do need good work with liveable wages, but this is not a good solution.	SO02
2123	The possible environmental issues that may plague our beautiful and beloved natural areas for years to come - for the sake a 'blink of the eye' 20+ year job producer - is ridiculous.	SO01, WR115, WR195
2124	The mere fact that 500 years is even mentioned as a possible time frame for remediation and clean up processes is a dead give away that the project is completely and absurdly unrealistic.	PD03, WR195
<b>Sender Name (Submission ID)</b> Nan Lightner (46124)		
10817	We must think Long term consequences so our children's children will not be grappling with sad and irretrievable outcomes. Good water is "gold", scarce and a necessity for the World. Please do not let your decisions jeopardize its future.	WR195
<b>Sender Name (Submission ID)</b> Nan Snyder (42562)		
6933	Another concern is that a portion of sulfuric toxic water will not be contained in the mining process. The non-captured portion will seep into the atmosphere as acid rain. This migration of pollutants will threaten, for many future decades, municipal water systems, wells, lakes, and rivers. The mobility of these non-contained pollutants is without restraint.	WR107, WR108, WR111, WR115

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nan Snyder (42562)		
17060	Today's modern mining operations are automates with unmanned, driverless trucks, trains, and drills, reducing the instances of exposure to death in the mines. The results are an increase in safety, reduction of contact with health hazards, and improved productivity.	HU03
17061	The implementation of automated, robotic mining allows operation of mines from remote locations. So it may be that Duluth or Minneapolis will get the high paying jobs generated from Ely's mining operations and not the local population.	SO06
17062	Although the safety of mine personnel and equipment emissions reduction should be improved by automation, we are likely to get increased pollution from the coal fired utilities supplying enormous amount of electricity for the mines' processing facilities.	AIR02
17063	One important issue in the mining controversy is the method of taxing the mining companies. The present method for iron ore, created in 1941, is called the "production tax". The regulations for this taxing system are antiquated and complex. The do not appear easily applicable to a company mining multiple minerals consisting of copper, nickel, cobalt, platinum and gold. And if history is any guide, we will get decreasing production taxes in what is likely to be an inflationary economy. Most of the billions of dollars will go to foreign companies and they will also be shipping this wealth abroad with little return for Minnesota citizens.	SO06
<b>Sender Name (Submission ID)</b> nan stevenson (7164)		
530	Yes, it creates jobs, but only in the short-term and it will pollute the watershed for hundreds of years. Not a good trade-off. We have the ability to recycle old minerals and use renewable sources for energy.	SO01
681	We have the ability to recycle old minerals and use renewable sources for energy.	ALT16
<b>Sender Name (Submission ID)</b> nanakay@unitelc.com (39824)		
6907	If MN DNR approves this project, it will be authorizing acid mine drainage which includes cancer causing heavy metals to enter the pristine environment of Minnesota.	HU07
6923	[The SDEIS] does not indicate a contingency plan for mechanical break-downs in the complicated filtration system that Poly-Met proposed to treat wastewater, even though it would have to operate for centuries. There are no contingency plans for the smallest or biggest failure of this complex mechanical system of pumps, pipelines and filters...This plan also does not assess the impact of more frequent heavy rain on operations which is likely to happen due to climate change.	PD22, WR128, WR130, WR131
14272	According to Poly-Mets own data, the mine would be in operation for approximately 20 years, but would generate toxic water pollution in the headwaters of the Lake Superior basin potentially over 500 years. This demonstrates an unconscionable disregard for our environment, water resources, wildlife and human health of MN citizens.	WR115
14273	The mining company will likely go bankrupt after it has left it's destruction to our precious environment, and leave the cost of the clean-up to Minnesotan's for the next 500 years or more.	FIN01
14274	This plant which will be coal fired, will add to greenhouse gases and have negative impact on climate change.	AIR01
14275	The health effects of copper mining have not been adequately addressed in the Poly-Met environmental review. There will be increased mercury emissions, exposure to asbestos like mineral fibers and arsenic. The World Health Organization has listed 5 or the 10 chemicals used in this process project of majoy public health concern.	HU01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nancy and Jim Ellis (42858)		
8826	My daughter, Lara Wilson and her husband, Andy Fisher, bought land in two places there... It's called the National Forest Lodge. The fact that any mining close to them would have a terrible impact on their livelihood is obvious. Please check the website of these two businesses and see how close they are to where Polymet and Twin Metals want to mine.	SO02
8826	My daughter, Lara Wilson and her husband, Andy Fisher, bought land in two places there... It's called the National Forest Lodge. The fact that any mining close to them would have a terrible impact on their livelihood is obvious. Please check the website of these two businesses and see how close they are to where Polymet and Twin Metals want to mine.	SO02
8827	My heart has always been with the beauty and wonder of the forests of Northern Minnesota... The forest would be ruined, the wetlands not only gone but what is left would be polluted and toxic [as a result Polymet Mining project].	VEG03, VEG06
8827	My heart has always been with the beauty and wonder of the forests of Northern Minnesota... The forest would be ruined, the wetlands not only gone but what is left would be polluted and toxic [as a result Polymet Mining project].	VEG03, VEG06
8830	There are other ways to promote jobs [than mining] – there are other ways to get copper one being by recycling.	SO02
8830	There are other ways to promote jobs [than mining] – there are other ways to get copper one being by recycling.	NEPA06, SO02
<b>Sender Name (Submission ID)</b> nancy atzen (44940)		
8293	I am concerned that underwater storage of the most toxic category 2/3 and 4 stockpiles will lead to groundwater contamination and potential surface contamination.	HAZ01, WR115, WR172
8294	Once [toxic] material is disposed of in this manner it will be impossible to mitigate any unforeseen consequences.	HAZ03
17327	If this disposal method is to be followed it must be done with an extremely high level of analysis of the surrounding and underlying rock, any rock fracturing, and hydrologic conditions in and near the pit.	WR007
17329	If necessary any potential toxic migration must be prevented by sealing or encapsulating the waste mass. If this isn't possible, alternative above ground disposal methods that confine these toxics would need to be evaluated before the project proceeds. Would a benzoate seal on the walls be possible or useful. Perhaps fine grained layers between the more and less toxic wastes would also protect the pond above from seepage of toxics into the surface waters.	ALT07, ALT10, ALT13
<b>Sender Name (Submission ID)</b> Nancy Brown (18288)		
14024	There is a long history of mining companies declaring bankruptcy to avoid the cleanup of their sites.	FIN01
<b>Sender Name (Submission ID)</b> Nancy Carpenter (991)		
486	The environmental risks and costs are far too great to even come close to balancing out the jobs and boost to the northern Minnesota economy. The mining jobs will mean very little when, not if, but when the contaminated water begins to show its effects. The tourism and hospitality industries of the northland, not to mention the life in the northern wilderness, cannot cope with the inevitable environmental disaster that a mine like this would create.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Nancy Carpenter (991)	
488	Any project that relies on several hundred years of continuous water treatment should not be given a moment's consideration.	PD03
<b>Sender Name (Submission ID)</b>	Nancy Dowling (36801)	
8669	The SDEIS is insufficient. . .It does not provide important information, such as the details of the proposed water treatment systems or how the centuries of operations, maintenance, monitoring and reconstruction of water treatment facilities will be paid for.	FIN01, FIN05, WR128, WR143
<b>Sender Name (Submission ID)</b>	Nancy Ellis (38713)	
16391	I care about jobs, of course, but not mining sulfide ore in the Boundary Waters watershed and the Lake Superior watershed.	WR111, WR115
<b>Sender Name (Submission ID)</b>	Nancy Gibson (18336)	
2417	The geological complexity of northeastern Minnesota lacks a high level of investigation, execution me, and testing to achieve stringent management of potential contaminants.	WR071
2419	the monitoring for potential contaminant releases will be difficult or ineffective, yet needs to be examined	PD05
2420	lack of effective groundwater maps above the bedrock need to be assessed to better understand the distribution of aquifer and non-aquifer sediments.	WR071
11240	Polymet needs to address the sulfate standards and how they will comply to protect the existing stands of water bodies that were previously documented stands present within a water body dating back to November 28, 1975. The SDEIS lack this compliance issue.	WR154
14618	there needs to be a development of approximate containment of monitoring systems.	PD01
19897	A critical omission of the SDEIS is the study of moose and the impact on its population dynamics. The initial Polymet project proposes to drain 93 wetlands in moose habitat. Where will those wetlands be replaced? The trade-off in wetlands may or more likely not aid our dwindling moose population...The SDEIS does not mention Minnesota's latest designation of moose as a species of special concern: a species that has been decreasing in alarming numbers	WI01
19941	Lack of effective groundwater maps above the bedrock needs to be assessed to better understand the distribution of aquifer and non-aquifer sediment types. In summa this is a complex system and must be mapped as effectively as possible. This includes the subsurface areas if containment of contaminants and meaningful monitoring are to be achieved. Therefore, I advocate for additional work to characterize these systems.	WR135
19979	The geologic complexity of northeastern Minnesota lacks a high level of investigation and testing to achieve stringent management of potential contaminants.	WR099
20007	The work to date doesn't address fractures in the subsurface areas and their effects to an adequate level...There are no robust characterizations of those fractures at mine and processing sites.	WR099
20009	There are no guarantees that there will not be an unforeseen mishap.	AQ22
<b>Sender Name (Submission ID)</b>	Nancy Graham Rich (38430)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nancy Graham Rich (38430)		
13635	I have been going to the BWCA off and on for many years, and I can't believe that mining as described will in any way NOT affect the BWCA area, the water and the future for that area.	WILD02
13636	The small amount of jobs that would occur with the mining for the short period of time that they are mining does not seem like a good balance for the state and nation in this area. There is also NO confirmation that the people getting the jobs would be from the northern area of Minnesota at all.	SO01
13637	Even if they set aside a billion dollars for clean-up of the area after the mining, it will no longer be the pristine area that it is now. You can't take back what you destroy in nature! We want to preserve that area for our grandchildren and beyond, so that they can learn to appreciate and enjoy what a national treasure that is there.	WILD02
<b>Sender Name (Submission ID)</b> Nancy Hauer (14806)		
13793	No number of mining jobs are worth 500+ years of water pollution in Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Nancy L Eisinger (54726)		
18712	I think the risks are not worth the price of compromising the land and lakes near the BWCA. There is no way Poly Met can guarantee clean water, soil and air for us and our future generations.	SO01
18715	The potential scope for pollution from this proposed mining operation is mind-boggling. The proposed site is precariously close to some of ourstate's most pristine area for leisure and tourism- the BWCA.	CU11
<b>Sender Name (Submission ID)</b> nancy It rosenbower (47667)		
17272	the short-term fix to the economic difficulties on "the range" will not give lasting value to the area. and, on top of that, it will leave the area less able to support the tourism and small niche businesses already active in the area.	SO02
<b>Sender Name (Submission ID)</b> Nancy Mcready (18124)		
3426	"It's never been done before." "All copper-nickel mines pollute." [Environmental groups] have become extreme preservation groups against economic development. These preservation groups refuse to acknowledge advances in mining technology instead of embracing new technology and working with PolyMet and others...The environmental community should be ashamed of themselves. They should be embracing new technology and working together to make this project happen.	SO10
7480	[M]ining these strategic metals here in Minnesota, where there are strict environmental regulations, is a matter of national security!...We believe the new technology is available and PolyMet...will be able to aid the Pentagon with recovery of these precious metals and make the United State strategic metal independent.	NEPA05
10641	We believe the SDEIS prepared by the three agencies is a good document and addresses environmental issues thoroughly.	NEPA16
10642	There are several precious metal mines that are operating today, or which have operated recently, without harm to the surrounding environment.	GEN02
<b>Sender Name (Submission ID)</b> nancy miller (47483)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> nancy miller (47483)		
17601	I am for responsible mining, and the proposed mine will further pollute our waters. I know 2 men who died from cancer within the past 9 months who lived in Aurora. In my own neighborhood near Eveleth, 5 people within a 3 block radius have died from various cancers and another 5 others who have had cancer / or tumors including myself twice, who are surviving.	HU05
17602	Please listen to us- these decisions are irreversible in our lifetime, have little economic benefit, and definitely have a heavy financial and health cost that seriously outweighs the economic benefit. Please listen to reason!	SO01
<b>Sender Name (Submission ID)</b> Nancy Norr (47282)		
9293	The three public events were very well managed and provided the public with incredible resources. The web site information, fact sheets and videos have also raised the bar on how projects of complex and often controversial nature should be handled.	NEPA17
9294	A significant economic base for this region is and will remain mining. The growth of this industry is critical to the long term success of the region and will support a way of life for generations to come... As the public comment period for the project's Supplemental Draft Environmental Impact Statement (SDEIS) comes to a close, we are one step closer to bringing 360 full-time mining jobs to the Range and more than 600 spinoff jobs in other industries.	SO10
9295	Every development – from new office buildings to housing developments to airports to the highways that bring vacationers to northern Minnesota – impacts the landscape... Our former mines are now lakes that enhance our environment and by bringing mining companies and communities together, the Laurentian Vision Partnership guides future land use after mining closure.	LU07
9296	Copper-nickel mining will provide millions of dollars in local and state taxes to support our communities and educational systems and will create a domestic source for metals essential to our quality of life.	SO10
9297	Our state has some of the strictest environmental regulations in the country, and the environmental review process for the NorthMet project has been sound and thorough.	PER34
9299	Keeping jobs here and doing mining the right way is arguably the real definition of economic and environmental justice. It would be irresponsible to import these metals from countries that do not have strict environmental standards when Minnesota has the opportunity to mine responsibly.	SO10
14635	I see the no-action alternative. The "no-action alternative" is a death sentence for the communities of the east Iron Range. I don't know how you quantify empty storefronts and classrooms and boarded up houses. I don't know how you quantify families moving away.	SO10
<b>Sender Name (Submission ID)</b> Nancy Pius (6178)		
1153	The SDEIS contains no cost/benefit analysis of the PolyMet mine.	SO04
1154	The SDEIS does not say whether wages paid to mine employees will stay in Minnesota or whether they will go primarily to transient employees who will spend only a fraction of their income in Minnesota.	SO04
1155	The SDEIS does not discuss the impact of the loss of jobs when the price of copper declines and mining becomes unprofitable	SO04
1156	The SDEIS fails to assess the cost of unemployment benefits and other social services, increased crime rates, and other societal costs associated with volatility in employment.	SO04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nancy Pius (6178)		
1157	The model used to calculate the alleged economic benefits of the mine does not take into account the costs to the environment; the displacement of other economic activity, including among other things tribal rights to hunt, fish, and gather under the 1854 Treaty; the infrastructure, government, and social service costs resulting from the mining; and the consequences of the unpredictable influx and outflow of mine employees.	SO04
1158	What would be the costs for public infrastructure, lost opportunities to engage in other economic activities incompatible with mining, depressed real estate values, lost recreational opportunities, social upheaval, and perpetual clean-up that the public would be required to bear?	SO04
1159	PolyMet admits that water pollution by sulfuric acid and heavy metals will last for at least 500 years. Not all of the polluted water will be captured for treatment.	WR021
1160	The SDEIS fails to adequately assess the long-term impacts of the pollution resulting from the release of this untreated water.	WR070
1161	The SDEIS fails to provide contingency plans for the kinds of failures and mishaps that routinely occur in mining operations.	PD22
1162	Pipeline spills, accidental releases, failure of water collection and treatment infrastructure, and tailings basins failures are virtual certainties.	PD22
1163	The SDEIS provides no details on the impacts to water quality, wildlife, or human health if the water treatment system ceases operations at some time during the 500+ years during which the polluted water is being discharged.	HU01, WR060, WR130
1164	Minnesota Rules 6132.3200 requires that the site must be maintenance-free at closure, but the PolyMet mining plan calls for at least 500 years of active water treatment.	PD02
1166	The SDEIS contains no credible information about the actual cost of monitoring, maintaining, and replacing the equipment needed to treat polluted water for 500 years or more. It provides no details about the nature or guarantees of a financial assurance scheme that would remain viable for 500 years	FIN01, FIN05, FIN11
1168	Finally, even though the SDEIS admits that water pollution will last for a minimum of 500 years, its financial assurance section is an exercise in generalities. The actual cost of water treatment, monitoring, maintenance, repair, and reclamation is completely unknowable. The SDEIS says that PolyMet estimates initial closure costs of up to \$200 million, with post-closure monitoring and maintenance costs of up to \$6 million annually.	FIN01, FIN05, FIN11
<b>Sender Name (Submission ID)</b> Nancy Sampson (57214)		
17150	Let clean water be our legacy – not toxic pollution from mining! NO to PolyMet’s 20 years of mining @ the headwaters of the St. Louis River – NO to 500 years of toxic runoff.	WR195
<b>Sender Name (Submission ID)</b> Nancy Schultz (40897)		
6696	All the proposed methods in this SDEIS [to preform extraction of sulfide containing metals safely] are not new, and if they were, testing them in a highly sensitive wetland and environmentally rich native wild rice ecosystem sounds like a really bad idea. The consequences of polluting our water, with its highly varied flow patterns and rates system, is too great for the short term gains of a mining economy.	VEG04, VEG06, WET24
6703	Why doesn’t the [SDEIS] require that the 939 acres of wetland being destroyed, at the very least be replaced with wetlands that do the same job and serve the same habitat and the same streams. It doesn’t deliver this hence destroying 68% of the wetlands by not having them associated with the Lake Superior Basin at all.	WET03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Nancy Schultz (40897)	
6706	The SDEIS admits that the sulfide mine will directly destroy 913 acres of wetlands. It then says that as much as another 7,351 acres of wetlands could be lost due to pollution and changes to water patterns in the mine and tailings site. Why aren't there alternatives provided in the SDEIS to avoid or minimize this wetlands loss?	WET20
6715	PolyMet sulfide mine tailings will be stored on top of the old, already leaking, LTV tailings dump. This site is an unlined pile about two miles across set on top of peat and streams. It was built for taconite, not for sulfide mining, at a time when they wanted tailings piles to leak so they would be less unstable. There will be no liner under the new sulfide mine tailings. This tailings pile will need to be treated forever, how do you put a cost and sureties on forever?	FIN05, FIN11
6717	When flooding occurs during the 10 and 100-year rains, why isn't there a plan or indication of impacts for how the waste area will impact the waters when this massive acres of waste storage is flooded?	WR130
6725	The tailings basin is proposed to be completely unlined, there is no indication that fractures beneath the tailings site would transport pollutants, which is completely unrealistic...Existing tailings seepage already exceeds groundwater standards. In addition, on the LTV site, adjacent to the tailings, the SDEIS has documented that Area of Concern #8 has plume of pollution propagating through fractures. How did PolyMet arrive at the assumption that seepage will not happen through these fractures?	WR010, WR012, WR070
6728	Why isn't there an analysis done on the levels of manganese and lead that will in all likelihood make their way into the drinking water wells? Levels downstream of the tailings basin already indicate they have high levels of toxic metals. What will happen when we introduce a tailings pile? How does this risk get managed without some sort of analysis and benchmarking?	WR204
6743	The SDEIS claims that PolyMets sulfide mine pits, waste rock piles and tailings won't significantly increase water pollution. But to make that claim, PolyMet assumes waste rock piles won't seep to the 100 Mile Swamp, that there are no fractures under waste rock or under tailings or in mine pits and that a few pumps can collect more than 99% of the seeps from huge tailings dump. There isn't a mine on the the planet that works this way	PD03, WR007, WR008, WR010, WR012, WR019, WR020, WR080, WR167
6745	Why are there no predictive amounts of mercury pollutions that will be coming from the PolyMet tailings in the SDEIS?	MERC20
6747	The potential greenhouse gas emissions from the PolyMet sulfide mine and processing facility are staggering. It is stated that 7,07efw metric tons per year will occur.	AIR01
6748	The fact that no cumulative effects analysis of mining has been done is another indication of how disconnected this SDEIS is in dealing with how integrated ecosystems function. How does PolyMet plan on dealing with the impact of mercury contamination of fish in the St. Louis River estuary, and the habitats and tribal resources in the region?	CR01, CR03
10436	The consequences of polluting our water, with its highly varied flow patterns and rates system, is too great for the short term gains of a mining economy.	SO01
10444	Why doesn't the statement require that the 939 acres of wetland being destroyed, at the very least be replaced with wetlands that do the same job and serve the same habitat and the same streams.	WET05
10446	The SDEIS admits that the sulfide mine will directly destroy 913 acres of wetlands. It then says that as much as another 7,351 acres of wetlands could be lost due to pollution and changes to water patterns in the mine and tailings site. Why aren't there alternatives provided in the SDEIS to avoid or minimize this wetlands loss?	WET20

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Nancy Schultz (40897)	
10447	When flooding occurs during the 10 and 100-year rains, why isn't there a plan or indication of impacts for how the waste area will impact the waters when this massive acres of waste storage is flooded?	WR130
10448	There will be no liner under the new sulfide mine tailings. This tailings pile will need to be treated forever, how do you put a cost and sureties on forever?	FIN05, FIN08
10458	on the LTV site, adjacent to the tailings, the SDEIS has documented that Area of Concern #8 has plume of pollution propagating through fractures. How did PolyMet arrive at the assumption that seepage will not happen through these fractures?	WR010
10461	Why isn't there an analysis done on the levels of manganese and lead that will in all likelihood make their way into the drinking water wells? ... How does this risk get managed without some sort of analysis and benchmarking?	WR142
10464	Why are there no predictive amounts of mercury pollutions that will be coming from the PolyMet tailings in the SDEIS?	MERC20
10467	How does PolyMet plan on dealing with the impact of mercury contamination of fish in the St. Louis River estuary, and the habitats and tribal resources in the region?	AQ05, WI02
10552	All the proposed methods in this SDEIS are not new, and if they were, testing them in a highly sensitive wetland and environmentally rich native wild rice ecosystem sounds like a really bad idea. The consequences of polluting our water, with its highly varied flow patterns and rates system, is too great for the short term gains of a mining economy.	SO01, WR070
10560	Why doesn't the statement require that the 939 acres of wetland being destroyed, at the very least be replaced with wetlands that do the same job and serve the same habitat and the same streams.	WET05
10563	Why aren't there alternatives provided in the SDEIS to avoid or minimize this wetlands loss?	WET20
10565	When flooding occurs during the 10 and 100-year rains, why isn't there a plan or indication of impacts for how the waste area will impact the waters when this massive acres of waste storage is flooded?	WR130
10569	There will be no liner under the new sulfide mine tailings. This tailings pile will need to be treated forever, how do you put a cost and sureties on forever?	FIN01
10575	The tailings basin is proposed to be completely unlined, there is no indication that fractures beneath the tailings site would transport pollutants, which is completely unrealistic....How did PolyMet arrive at the assumption that seepage will not happen through these fractures?	WR010
10579	Why isn't there an analysis done on the levels of manganese and lead that will in all likelihood make their way into the drinking water wells?..What will happen when we introduce a tailings pile? How does this risk get managed without some sort of analysis and benchmarking?	WR142
10584	Every copper-nickel mine has created acid mine drainage and/or toxic metals pollution. Somehow the SDEIS team decided PolyMet mystical powers to claim that there system will work perfectly – forever.	WR023
10587	Why are there no predictive amounts of mercury pollutions that will be coming from the PolyMet tailings in the SDEIS?	MERC20
10591	The potential greenhouse gas emissions from the PolyMet sulfide mine and processing facility are staggering. What measures are bring another level of damage to our environed on a path of sustainable alternatives?	AIR01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nancy Schultz (40897)		
10598	The fact that no cumulative effects analysis of mining has been done is another indication of how disconnected this SDEIS is in dealing with how integrated ecosystems function. How does PolyMet plan on dealing with the impact of mercury contamination of fish in the St. Louis River estuary, and the habitats and tribal resources in the region?	MERC10
16611	Ultimately a sustainable business practice is a closed loop systems that has no waste/pollution.... To move us in this direction, we should not be taking risks that have irreparable damage and depend on quality control processes that must be in place forever.	PER04
16612	Every copper-nickel mine has created acid mine drainage and/or toxic metals pollution. Somehow the SDEIS team decided PolyMet mystical powers to claim that there system will work perfectly – forever.	PD29
16613	There isn't a mine on the the planet that works [the way PolyMet describes it will], does the DNR really believe this claim?	PD26
16614	The potential greenhouse gas emissions from the PolyMet sulfide mine and processing facility are staggering. It is stated that 7,07efw metric tons per year will occur. As mentioned in my introduction, this is not a sustainable business proposition, quite the opposite. What measures are bring another level of damage to our environed on a path of sustainable alternatives?	AIR01
16615	The fact that no cumulative effects analysis of mining has been done is another indication of how disconnected this SDEIS is in dealing with how integrated ecosystems function.	NEPA04
16992	PolyMet assumes waste rock piles won't seep to the 100 Mile Swamp, that there are no fractures under waste rock or under tailings or in mine pits and that a few pumps can collect more than 99% of the seeps from huge tailings dump.	WR010, WR011, WR012, WR017, WR018, WR019, WR023, WR060, WR061, WR071, WR080, WR087, WR090, WR099, WR108, WR167, WR168, WR169, WR175
<b>Sender Name (Submission ID)</b> Nancy Songer (39187)		
12335	If you approve a faulty water model, inaccurate water flow assumptions, and all the other problems inherent in the PolyMet NorthMet SDEIS, you will be sentencing current and future humans (not just Minnesotans!) to a legacy of poisoning in the foundation of all life, water.	WR015
<b>Sender Name (Submission ID)</b> Nancy Youngdahl (10790)		
8634	I am also concerned about the Moose population impact and the effect on wild rice production.	VEG04, WI01
<b>Sender Name (Submission ID)</b> Natalie Duncan (44813)		
7311	[The mining project is certain to create] the destruction of the habitats of Minnesota's wildlife	WI02
7312	[The mining project is certain to create] irreversible and indisputable damage to the nearby water sources	WR115
7314	They also say that many jobs will be reared. In reality, it is only around 350 jobs and in the long-run these jobs are not solutions to the job crisis.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Natalie Fine (48187)		
14400	Polymet's plan acknowledges that millions of gallons of polluted water will seep into the environment untreated, and the water they contain will need active treatment for hundreds of years.	WR035, WR070
14402	Polymet does not have a plan for mediating environmental disasters if they occur. Polymet's primary investors have a long history of environmental destruction and failure to clean up messes such as the BP oil spill.	PD22
14420	If any contaminated water is released (which Polymet acknowledges will occur), the wild rice crop will see severe negative effects.	WR156
14421	The majority of profits will not remain in the state of Minnesota, and Polymet provides insufficient details as to financial assurance needed to protect taxpayers in the future. Its not worth the risks...	FIN10
<b>Sender Name (Submission ID)</b> Natalie Griffith (58102)		
19938	Inadequate mitigation designation for controlling solute concentrations above class 2135.	AQ13
19966	Replacement Wetlands have not been demonstrated to be of equal quality to original for support of vertebrae and invertebrate life and effect on water quality, run off, and re-charging water table – regardless of replacement credits.	WET05
19971	Sustained reduced stream flows do not have the same impact on aquatic life, [ILLEGIBLE] envisions, and wildlife causing them a seasonal fluctuations.	WR065
<b>Sender Name (Submission ID)</b> Natalie Hoidal (47018)		
10903	As you are well aware, sulfates and sulfides are incredibly toxic under the proper conditions, primarily in wetlands. If anything were to go wrong with this project as sulfides were to leak faster or in greater quantities than expected, the surrounding habitats would be forever lost. Sulfides are directly toxic to the arenchyma tissue of aquatic plants like wild rice.	WR001, WR156
10905	In addition, while the project will inevitably create jobs, the wild rice in its proximity also supports the livelihoods and cultural identity of hundreds of individuals. If this company impacts the wild rice, will the jobs be worth it?	CR01
10907	Secondly, the EPA estimates that Americans only recycle 25% of their electronics. This means that as we stand currently, there is no need to mine these metals. We already have abundant metals in our homes and in landfills. Before mining, why don't we set up better recycling programs (which would create jobs) and prove that we actually know how to use our resources before exploiting our fragile ecosystems for more?	NEPA06
10908	In addition, the fact that Polymet has asked the state to reconsider the sulfide standard, which has been universally accepted in the scientific community since John Moyle's discovery of sulfide toxicity in wetlands in the 1930s and 40s, begs the question of whether or not it is truly in Polymet's best interest to follow our state's standards.	AQ13
10909	Minnesota has great regulations, but Polymet does not. Their subsidiary Glencore has a horrible human rights record as well as a poor environmental record. The company has no financial incentives to invest in keeping Minnesota clean and beautiful, to employ local workers, or to keep the money generated in our communities.	SO02
16711	Polymet admits in its plan that 1600 acres of wetlands will be impaired by the process, which will lead to the destruction of current habitat, but will also allow more invasive species to take hold, which will have impacts far beyond the 1600 acres.	WET24

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Natalie Holdal (18186)		
3986	There is a need for these metals. But these metals already exist. The EPA estimates that only 25 percent of our electronics are actually recycled. And so it seems a little bit wasteful that we are continuing to mine for more when we haven't figured out how to use the ones that we already have.	ALT09, ALT16
3987	...wild rice is incredibly fragile. And if anything goes wrong with this proposal, the wild rice that brought people to Northern Minnesota in the first place, and that continues to sustain the livelihood and the cultures of thousands, maybe hundreds, of people, if that is destroyed, then this project is completely disastrous.	VEG04
<b>Sender Name (Submission ID)</b> Natalie Obee (9619)		
230	The economic sustainability of our natural environment and the tourism dollars that that environment makes possible should take precedent over any potential, short-term gains from the mine.	SO01
1332	The other issues notwithstanding, the potential 500-year clean up and the undetermined nature of who pays for that clean up, are reason enough to not green light this project.	FIN01
<b>Sender Name (Submission ID)</b> Natalie Steen (39911)		
14291	The Boundary Waters is an exceptionally rare place and this mine could have irreversible consequences on one of the most unique places in Minnesota.	WILD02
<b>Sender Name (Submission ID)</b> Nathan Anderson (10885)		
8646	Aquifers can be affected when climate change is accurately assessed particularly when observed under a worst case scenario basis. Please analyze the impact of mining under the conditions of flood and drought...	WR180
13775	the same worst case scenario basis as is adopted by the EPA for the purposes of public safety and prevention of exposure to lead [should be applied to the Project].	HU01
<b>Sender Name (Submission ID)</b> Nathan Keller (38824)		
16831	Their are other ways to create jobs and make money don't do it while destroying something we will not be able to recreate.	SO01
<b>Sender Name (Submission ID)</b> Nathan Mielke (1777)		
12484	What are the tax benefits of sulfide mining?	SO04
12487	And what about the 300 jobs PolyMet suggests we'll get in return? Even under the rosiest scenario, total mine payroll over 20 years would be a small fraction of the \$2.8 billion cost of treating pollution for 500 years. Who is going to pay that \$2.8 billion? It hardly seems likely that the \$150 million financial assurance bond PolyMet has proposed would even come close.	SO01
12488	The corporation stands to profit if PolyMet is permitted; shouldn't it also be responsible for the cost of cleaning up the mess left behind if things go wrong?	FIN01
12489	Minnesota taxpayers would be saddled with the aftermath virtually forever. We need more financial transparency on this issue -- and fast.	FIN10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nathan Mielke (1777)		
13788	the long-awaited Supplemental Draft Environmental Impact Statement has now been released that could lead to the permitting of Minnesota's first copper-nickel mine, an industry the Environmental Protection Agency has pegged as one of the nation's most polluting.	PER35
13790	PolyMet acknowledges its mine wastes would generate pollution for 500 years. Its long-term treatment plan calls for two reverse-osmosis plants. The Barr report indicates these plants would cost about \$20 million each to build and \$2 million each per year to operate over a 20-year lifespan. If both plants ran 500 years, operation and replacement costs would total \$2.8 billion. That \$2.8 billion is just a portion of the true cost of a site generating polluted water for centuries. The Barr report on PolyMet's water treatment doesn't include monitoring expenses and disregards future escalating costs. It does suggest a contingency cost should be included (for technical failures, clean-up of seepage, etc.). So the final tab is likely to be many times the \$2.8 billion. (Water-quality scientists with the Grand Portage tribe calculate PolyMet clean-up at \$90 billion.)	FIN05, FIN08, FIN11, WR037
13795	Because PolyMet has no assets other than the mine, if the deep-pocket parent company is not included on the permits, Minnesota will have no access to assets other than an abandoned, polluted mine site. Glencore Xstrata, PolyMet's "strategic partner," owns nearly a third of the company's stock and the first five years of metals if PolyMet is permitted. Glencore is a multibillion-dollar Swiss corporation chaired by former BP CEO Tony Hayward, whose environmental record is infamous around the world. The corporation stands to profit if PolyMet is permitted; shouldn't it also be responsible for the cost of cleaning up the mess left behind if things go wrong?	FIN01, FIN02
13797	Otherwise our grandkids will be left wondering why we let foreign mining investors take such huge advantage of "Minnesota nice" at the expense of countless generations to come.	SO06
<b>Sender Name (Submission ID)</b> Nathan Peters (9538)		
182	New water modeling is absolutely necessary	WR086, WR093, WR105, WR106, WR189
183	500 years of monitoring and water treatment are ridiculous burdens for the state to take on.	WR115, WR128
955	The head of the parent company that owns PolyMet is Tony Hayward, the former head of BP. He is the chairman of CompactGTL. He was at the helm when BP committed the largest crime against the Earth and against humanity as its Deepwater Horizon rig burst into flames and spewed oil for months. In short, PolyMet cannot be trusted.	PER02
<b>Sender Name (Submission ID)</b> National Parks Conservation Association (42888)		
9024	Given the narrow view taken in the SDEIS of "reasonably foreseeable," the SDEIS fails to include in its Cumulative Effects analysis 11 other projects by mining companies in the region... TMM must be considered in the cumulative effects analysis because of the geographic and temporal proximity to the NorthMet mine.	CU02
12110	The SDEIS should consider cumulative impacts on Lake Superior and the St. Louis River.	CU01
12166	The SDEIS fails to include in its Cumulative Effects analysis, 11 other projects by mining companies in the region. However, the analysis must be expanded to include consideration of some of these projects, particularly the proposed Twin Metals Minnesota (TMM) underground sulfide mine.	CU02
12174	The SDEIS essentially acknowledges there will be an increase of mercury and sulfate loadings to tributaries of the St. Louis River. The SDEIS should not rely on a series of offsets to exclude the St. Louis River, but instead it should undertake a thorough analysis of the negative impacts the project will have on the individual downstream lakes and tributaries to the St. Louis River and the resultant impacts to the river and lake.	WR024

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	National Parks Conservation Association (42888)	
12181	The NorthMet project will be contributing a new source of air pollution in an already degraded area. Given that none of the nearby impacted Class I areas are on track to meet regional haze visibility goals, and that violations of the one hour standards for nitrogen oxides (Nox) and sulfur dioxide (SO2) are shown in cumulative modeling, any new emission sources that contribute to these problems should be carefully considered, even if the predicted impacts are small.	AIR09
12182	The cumulative visibility analysis (Section 6.2.3.8.7) is out of date and should be updated. The SDEIS fails to account for the Federal Implementation Plan issued by the U.S. Environmental Protection Agency in 2013 for emissions from taconite facilities, and does not include available visibility data from 2011 for nearby Class I areas.	AIR08
<b>Sender Name (Submission ID)</b>	Ned Bouril (39710)	
6539	...the basic tenets of the current PolyMet Mine project and its inadequate SDEIS proposal beg credulity on an epic scale. Even if every proposed detail of every phase of this project were to be flawlessly implemented for even the first 100 years of the proposed 500, there cannot possibly be any reasonable belief that "we" could predict that the subsequent 400+ years of sulfide mining pollution remediation would continue without issues as planned	PD03
6540	...in the SDEIS, the lack of any substantive financial assurances designated for any toxic seepage which may escape the mine site boundaries or its intended storage facilities should be enough of a red flag to halt and abort this excursion into the absurd.	FIN13
6541	...just the logistics of this proposal alone are incredulous, as it has all of the earmarks of a classic "cut and run", in this case most likely realized by some form of an "unanticipated" bankruptcy, leaving not PolyMet, but the State's citizens to pick up the pieces financially	FIN01, FIN10
6542	... on a geo-political level, is it not possible that the bulk of the extraction profits will not only be leaving MN but most likely the USA as well, via the mufti-national PolyMet parent investor Glencore and its partner Xtrata? And after trading 20 years of temporary employment for 500 years of toxic remediation, who, ultimately will benefit from this arrangement?	SO06
6543	... to those who piously declare that it is our own techno-centric culture which is the primary force driving the need for further exploration and extraction of these minerals so necessary to make our electronic gadgets (gizmos) run well, I would ask them to review current metal recycling technologies and their ensuing economies as implemented in many industrialized countries as well as revisit the phenomenon of commodity stock piling and the boom & bust cycles created by international commodity price fluxuations.	NEPA06
6544	... the world of the "extraction industries" has for decades been awash in technical mishaps, catastrophic failures, and the willingness to violate multiple federal, state, provincial, and local safety/health codes and laws, often resulting in the permanent devastation of pristine lands and/or natural resources and the toxification and displacement of local populations.	SO01
6545	I would ask you deny approval of this particular mine as planned in the SDEIS and consider instituting a permanent moratorium on hard rock sulfide mining in the 3 watersheds of the MN Range area.	PER25
6880	Even if every proposed detail of every phase of this project were to be flawlessly implemented for even the first 100 years of the proposed 500, there cannot possibly be any reasonable belief that "we" could predict that the subsequent 400+ years of sulfide mining pollution remediation would continue without issues as planned.	PD01
6881	... in the SDEIS, the lack of any substantive financial assurances designated for any toxic seepage which may escape the mine site boundaries or its intended storage facilities should be enough of a red flag to halt and abort this excursion into the absurd.	FIN13

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Ned Bouril (39710)	
6882	...the logistics of this proposal alone are incredulous, as it has all of the earmarks of a classic "cut and run", in this case most likely realized by some form of an "unanticipated" bankruptcy, leaving not PolyMet, but the State's citizens to pick up the pieces financially.	FIN01, FIN10
6883	... is it not possible that the bulk of the extraction profits will not only be leaving MN but most likely the USA as well, via the mufti-national PolyMet parent investor Glencore and its partner Xtrata? And after trading 20 years of temporary employment for 500 years of toxic remediation, who, ultimately will benefit from this arrangement?	SO06
6885	... to those who piously declare that it is our own techno-centric culture which is the primary force driving the need for further exploration and extraction of these minerals so necessary to make our electronic gadgets (gizmos) run well, I would ask them to review current metal recycling technologies and their ensuing economies as implemented in many industrialized countries as well as revisit the phenomenon of commodity stock piling and the boom & bust cycles created by international commodity price fluxuations.	NEPA06
6888	... the world of the "extraction industries" has for decades been awash in technical mishaps, catastrophic failures, and the willingness to violate multiple federal, state, provincial, and local safety/health codes and laws, often resulting in the permanent devastation of pristine lands and/or natural resources and the toxification and displacement of local populations.	SO02
6889	... why would the MNDNR be willing to approve this pristine watershed to be ground zero for what is clearly an ill-conceived and unproven "experiment" in post-peak mineral extraction technologies.	PD32
6891	I would ask you deny approval of this particular mine as planned in the SDEIS and consider instituting a permanent moratorium on hard rock sulfide mining in the 3 watersheds of the MN Range area.	PER25
13359	To reiterate the spirit of many comments from previous public forums, the basic tenets of the current PolyMet Mine project and its inadequate SDEIS proposal beg credulity on an epic scale.	NEPA15
13360	For example, in the SDEIS, the lack of any substantive financial assurances designated for any toxic seepage which may escape the mine site boundaries or its intended storage facilities should be enough of a red flag to halt and abort this excursion into the absurd.	FIN08
13363	And on a geo-political level, is it not possible that the bulk of the extraction profits will not only be leaving MN but most likely the USA as well, via the mufti-national PolyMet parent investor Glencore and its partner Xtrata	SO06
13366	And to those who piously declare that it is our own techno-centric culture which is the primary force driving the need for further exploration and extraction of these minerals so necessary to make our electronic gadgets (gizmos) run well, I would ask them to review current metal recycling technologies and their ensuing economies as implemented in many industrialized countries as well as revisit the phenomenon of commodity stock piling and the boom & bust cycles created by international commodity price fluxuations.	NEPA06
13367	Globally, the world of the "extraction industries" has for decades been awash in technical mishaps, catastrophic failures, and the willingness to violate multiple federal, state, provincial, and local safety/health codes and laws, often resulting in the permanent devastation of pristine lands and/or natural resources and the toxification and displacement of local populations.	PER35
14880	Since the proposed PolyMet mining techniques have never been successfully implemented anywhere else globally, why would the MNDNR be willing to approve this pristine watershed to be ground zero for what is clearly an ill-conceived and unproven "experiment" in post-peak mineral extraction technologies.	PD26
<b>Sender Name (Submission ID)</b>	Ned Gatzke (31952)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ned Gatzke (31952)		
13839	Mining pollution does not go away and compromises environmental quality for short term profits that do not benefit local communities.	SO01
13840	There is no evidence anywhere that sulfide host rock mining can be accomplished in an environmentally responsible manner. The minimum standard for Wisconsin metallic mineral mining in sulfide ore bodies is evidence of no pollution in ten years of operation and after ten years of abandonment. No permit applicant has been able to show evidence of either of these standards anywhere in North America.	PER35
<b>Sender Name (Submission ID)</b> Nedra Nicholls (12203)		
8857	In that all water flows north there to the Canadian Border, and then on to Lake Superior...it will make a... will be the end of canoeing in that beautiful area.	LU06
<b>Sender Name (Submission ID)</b> Neil Billington (23599)		
10281	We're not only talking about the dangerous effects of Sulfide mining and Acid Mine Drainage in Minnesota, we are also talking about the affects it will have on ALL Other Surrounding and Connecting Areas, like Michigan and Canada.	CU06
<b>Sender Name (Submission ID)</b> Neil Gardner (40614)		
14263	Repair the errors & omissions. This is the precedent for perhaps many more . Take the time to do it right again. For as long as it takes. Plenty of poor stewardship worldwide as examples done wrong by same few multinational companies.	NEPA09
<b>Sender Name (Submission ID)</b> Neil R Gardner (54548)		
19197	Sulfide mining has never worked without polluting. Why would we do this—particularly by a national treasure like the BWCA?	WILD02
<b>Sender Name (Submission ID)</b> Nell Bartzen (44523)		
10771	Is the technology there to reap the benefits of Minnesota's expansive mineral deposits while protecting the diverse but unique land of northern Minnesota? Based on the SDEIS, the answer remains no.	PD32
10775	Let's wait for a proposal that can uphold the instant ideal of my generation. When the mine closes, after 20 years of operation, that should be the end of it.	PD01
10777	If the minerals are worth enough to the Swiss-based Glencore company and Canada's PolyMet, they should create the technology that allows instant purification of byproducts to a environmentally stable state.	PD32
10779	We cannot sign onto something where the detrimental effects and harm to the environment last longer the presence of the industry.	SO01
10785	10% of groundwater seepage that the company is saying they have no means, or no interest, in capturing, and that coming from a junior mining company that has never operated a mine before.	WR018
<b>Sender Name (Submission ID)</b> Nels Ojard (7185)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nels Ojard (7185)		
544	it is my belief that the science of the study and its reflection on the natural environment and communities of the area reflect the best available science, engineering, and impact/benefit analysis available to the process.	PD28
<b>Sender Name (Submission ID)</b> Nenagh O'Leary (54199)		
17248	The boundary waters are a beautiful area for family's and camp companies can go to enjoy the outdoors, it's a place to make memories, why build a mine and effect family bonding,	LU04
<b>Sender Name (Submission ID)</b> New Progressive Alliance (3384)		
204	PolyMet would create polluted water requiring expensive treatment for hundreds of years after they stop mining, and millions of gallons of untreated, polluted water would seep from the site every year into groundwater and nearby rivers.	WR037, WR129
205	PolyMet's plan fails to plan for contingencies like pipeline breakages and extreme weather events. Experience has proven these are inevitable.	PD22
206	Will the company leave the site clean and maintenance free?	PD01
207	Will Minnesota taxpayers be protected? Again, absolutely not! This involves a trade of 20 years of mining for perhaps centuries of monitoring, treatment of polluted water, and site maintenance.	FIN01, FIN08, FIN10, FIN11
<b>Sender Name (Submission ID)</b> Newood Gilk (7167)		
14998	The PolyMet SDEIS is still inadequate. It makes claims without facts behind them.	NEPA15
14999	[The PolyMet SDEIS is still inadequate.] It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	HU04
15000	[The PolyMet SDEIS is still inadequate.] It doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	ALT13
15001	[The PolyMet SDEIS is still inadequate.] It doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	AQ28
15002	The PolyMet sulfide mine... waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	HU03
<b>Sender Name (Submission ID)</b> Nic Kramer (44374)		
10426	you say you will monitor the mine for about 200 - 500 years, where will this money come from?	FIN01
10427	One main reason is the risk you are putting towards harming the boundary waters, which are a huge aesthetic haven for both Minnesotans and people visiting Minnesota.	WILD02
<b>Sender Name (Submission ID)</b> Nicholas Banovetz (47254)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nicholas Banovetz (47254)		
11531	Will our children be able to swim in Birch Lake if we keep the cabin? Will they be able to eat the fish they catch? Will we be able to drink the water coming out of the kitchen faucet?	WR081
16925	I know mining well and understand the "need" in the Arrowhead. However, I also understand that sulfide mining is drastically different than taconite mining, and that our waters are in jeopardy.	WR195
16926	I've seen very little in the news about the affect sulfide mining could have on area real estate. While my example is anecdotal, I believe it speaks volumes.	SO03
19187	From a nostalgic/family history AND real estate perspective, is the state confident that our cabin/Birch Lake are safe? How? I'm very concerned.	WR081
<b>Sender Name (Submission ID)</b> Nicholas Bowlin (54543)		
19177	I'm writing because I think the BWCA is special and that the Poly Met mine poses a serious threat to the wilderness of Northern Minnesota. It is largely untouched by humans, and there are few places like that left.	WILD02
<b>Sender Name (Submission ID)</b> Nicholas Eltgroth (43321)		
15751	The pollution [the PolyMet project] will generate will destroy our water and the surrounding land.	WR111
<b>Sender Name (Submission ID)</b> Nicholas James Stephan (9569)		
209	Could you please explain how "capturing and treating affected water using mechanical and/or non-mechanical methods for as long as needed" will truly protect surface waters located near the site, and how far off site will monitoring take place?	WR035
1316	What type of vegetation will be planted in the reclamation areas and will it all be vegetation native to Minnesota?	VEG05
1317	How effective or what is the efficiency of the "covers" that will be used to protect water seepage from getting into the rock stockpiles, tailings basin, and hydrometallurgical residue facility?	PD04
1319	What is a hydrometallurgical residue facility?	PD18
1320	How will storm water be managed to prevent erosion and pollution flowing off site?	PD04, WR176
1321	What kinds of pollution, toxins or other harmful chemicals could potentially become released into the environment (please supply list)?	AIR10, WR025
1323	Regarding the destruction of wetlands, what is the approximate size in hectares that your company intends to destroy? How does your company intend to "establish new wetlands?"	WET04, WET07
1325	According to your financial assurance plan, you estimate that roughly \$200 million will adequately compensate environmental contamination and the destruction of numerous ecosystems. How did your company determine \$200 million would be adequate? What method did your company use to place a price on nature?	FIN05, FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nicholas James Stephan (9569)		
1326	Will you be mining in an aquifer or groundwater?13. How will the water be captured for treatment?14. What additional methods will your company employ to minimize hydrological impacts?	PD05
1327	Regarding erosion, in what quantities or volumes of sediment does your company anticipate could potentially contaminate surface water?	WR191
<b>Sender Name (Submission ID)</b> Nicholas Lamon (11586)		
2246	It appears the plant will produce a lot of waste water which will need to be cleaned up for many years. How will this pollution be contained?	PD04, WR130
2246	It appears the plant will produce a lot of waste water which will need to be cleaned up for many years. How will this pollution be contained?	SO02, WR037, WR128, WR143, WR144
2247	Who will pay for accidents/clean-up? I believe in the end the tax payers will foot the bill for a company to profit.	FIN01, FIN10
2247	Who will pay for accidents/clean-up? I believe in the end the tax payers will foot the bill for a company to profit.	HU03, WR042, WR115, WR195
<b>Sender Name (Submission ID)</b> Nicholas Larkins (38707)		
4470	PolyMet Mining Company's proposed NorthMet sulfide mine fails to meet four fundamental, common sense clean water principles, principles the mining industry previously agreed to.	WR195
4471	Every year,11 million gallons of polluted seepage from the tailings basin will enter groundwater and the environment without being treated. Every year, over 5 million gallons of polluted seepage from the mine site will enter groundwater and the environment without being treated.	WR070
4473	Indeed, the model has been shown to be inaccurate in representing current conditions for water quality surrounding the mine site undermining confidence that it can accurately predict future water conditions.	WR044, WR049, WR172, WR173, WR174
4475	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin spills.	PD22
4476	During operations, over 6.2 million gallons of polluted water a day will need to be treated. The mine plan does not describe what will happen if the water treatment plants break down.	PD22
4477	The plan for at least 500 years of active water treatment violates Minnesota Rules (6132.3200) that call for the mine to be left maintenance free at closure. 526 acres and over 167 million tons of reactive waste rock would be left on the surface after closure.	PER04
4478	Details about financial assurance a "damage deposit" the company provides are not outlined in the revised mine plan. The public does not know how much500 years of water treatment will cost, how the company will be held responsible for centuries of costly water treatment, or how the public will be protected from liability.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Nicholas Legg (44013)		
7575	It is also important that we consider the costs of extraction and realize that our demand [for copper-nickel] must be met pragmatically. Certain landscapes, like those of northeast Minnesota, are too sensitive to the negative side effects of sulfide mines. The risks are just too great.	NEPA06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nicholas Legg (44013)		
7578	The enormous amount of money proposed to be held for future cleanup alone demonstrates the environmental risks. When compared to the relatively few jobs created, it is clear Minnesotans collectively stand to lose much more than they will gain from mining.	SO01
15055	I cherish the woods and waters of the northeastern Minnesota, a connection I know is shared by many around the world. But protecting some of our most prized landscapes is not only about those who know its value, it is about protecting the resource for those who have yet to discover it.	GEN01
15056	Your decision will set a precedent for sulfide mines proposed in northern Minnesota's future. Therefore, the burden of proof that mining will cause no lasting harm must be greatest now.	PER07
<b>Sender Name (Submission ID)</b> Nicholas Loch (6102)		
1033	I understand the short term benefits for the economy and the jobs this project would provide, the long term effects will have a negative impact on the environment, and these negative effects far outweigh the positive ones.	SO01
1034	The perennial tourist dollars these natural wonders bring must not be put in jeopardy!!!	SO04
1035	Copper mining unleashes hazardous materials for hundreds or thousands of years and will pose a direct threat to the natural wonders, the tourism, and the economic viability of the region.	SO02
1036	If people need jobs, then lets find a way to get them jobs preserving the environment, rather than destroying it.	SO02
1037	Once the precious metal is gone we will have a cesspool that poisons the surrounding area, and no techniques for being careful or mitigating the leaching of hazardous material will be successful enough to prevent that from happening.	PD32
<b>Sender Name (Submission ID)</b> Nicholas Olson (47352)		
12232	It brings me great concern to think that the Minnesota and the BWCA is going to be threatened by a short sighted mining project that uses job creation as its major selling point to our state. I can think of a lot of other places in which job creation would have a greater overall impact to our state and at the same time directly improve our environment.	SO01
12233	I want to make sure that Minnesota's waters, especially those of the BWCA are kept pristine and clean for their enjoyment and exploration.	WILD02
12239	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats.	WR115
16943	On a related note, this is also a racial justice issue. The direct impact on wild rice should be enough to stop this project immediately.Let's not continue our legacy of racial injustice by destroying a sacred food source of our Ojibwa community.	CR01
<b>Sender Name (Submission ID)</b> Nicholas Rowse (47831)		
12766	The proposed mine would cause severe degradation to NEMN & the BWCA.	WILD02
<b>Sender Name (Submission ID)</b> Nicholas W Illegible (11567)		
2211	Never a clean mine site yet. No proof of any companies being able to do so in this country	PD26

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nicholas W Illegible (11567)		
2211	Never a clean mine site yet. No proof of any companies being able to do so in this country	PD26
2212	Waterways of our region are precious – Increasing the sulfide load on this large resource will degrade the habitat and it is then unrepairable	WR115, WR195
2212	Waterways of our region are precious – Increasing the sulfide load on this large resource will degrade the habitat and it is then unrepairable	WR154, WR156
2213	Cleaning this waste water for 100’s of years is hard to believe when the use is projected for 20 years. No logical train exists with these thoughts	WR035
2213	Cleaning this waste water for 100’s of years is hard to believe when the use is projected for 20 years. No logical train exists with these thoughts	WR035
3239	The health of our citizens is paramount. The health of our environment is our future. This type of mining does not fit into our good future.	SO02
3239	The health of our citizens is paramount. The health of our environment is our future. This type of mining does not fit into our good future.	SO02
<b>Sender Name (Submission ID)</b> Nick Bougalis (10073)		
331	The project is necessary for our regional economy.	SO10
<b>Sender Name (Submission ID)</b> Nick Boyd (3959)		
703	Based on a 2010 survey of U.S. miners' salaries, providing 360 jobs over 20 years would yield a total of about \$275,000,000 in pay. The cost of cleanup to taxpayers of similar sulfide mines across the United States in several cases has surpassed 225 million dollars. The ecotourism that this region benefits from could also be negatively affected in the long run. With all these points considered, is the allure of the monetary benefits of sulfide mining still validated?	SO01
<b>Sender Name (Submission ID)</b> Nick Loch (19969)		
1562	The locals that work on the job may benefit for a little while, however, in the long run this project will have a disastrous impact on the natural wonders that are the most important economic resource for Northern Minnesota.	SO01
<b>Sender Name (Submission ID)</b> Nick Rowse (47703)		
7978	The SDEIS states that blasting noise, which is intermittent or non-continuous, is not included in the noise level estimates because mine-blasting is typically an instantaneous event only occurring during daytime periods. The impacts of any noise generated by the proposed project needs to be presented and analyzed in the SDEIS.	N05
7984	In 2013, the USFWS proposed the northern long-eared bat for listing as endangered under the ESA. As there is likely roosting habitat within the forested areas of the proposed mine site, the SDEIS should address impacts to this species...No information was provided in the SDEIS to make assessments about the impacts of the proposed project to northern long-eared bats.	WI01, WI02
7990	In the Economic Assessment of the Underground Mining Option, a 2012 report [concluded] that underground mining would not be economically feasible, [which] seemed only to be based on metal prices and similar operations elsewhere. No information was provided in the SDEIS that valued the impacts to recreation on USFS lands both at the project site and within the nearby federally designated wilderness area.	SO04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nick Rowse (47703)		
7999	The information regarding financial assurances for the proposed project are inadequate for the purposes of making any decisions regarding mine operations and closure in the SDEIS...The preliminary cost estimates for mine close do not appear to be based on actual data and the time frames used (up to 20 years) are conjecture.	FIN05
8007	Allowing private surface mining would be inconsistent with USFS legal mandates for acquiring and managing these lands. This legal issue must be resolved prior to the project being authorized by the USFS.	LAN02
8031	As the IRRRB is under control of the Minnesota Legislature, it is inconsistent with both the [NEPA] rules and [MEPA] rules that significant monetary resources have been put towards the [proposed land exchange and the] development of this proposed project by PolyMet prior to a Record of Decision by the USFS and the U.S. Army Corps of Engineers; along with the [MDNR].	NEPA08
11133	Canada lynx, which are currently listed as federally threatened under the Endangered Species Act (ESA), were documented in 2010 by the USFS and the U.S. Fish and Wildlife Service (USFWS) within the proposed mine site. Only the USFS was mentioned by the SDEIS.	WI01
11136	The BWCAW needs to be completed protected from any noise impacts, which would degrade the experience of wilderness travel.	N02
<b>Sender Name (Submission ID)</b> Nick Voss (16254)		
1479	I want to see, right up front on the Polymet website, concrete, set dollar amounts of how much money they're putting down upfront to protect Minnesota's environment. This should be coupled with a set number of years they'll stay committed after the mining project concludes.	FIN01, FIN05
1480	Something else that would be beneficial would be a statement of their in-depth ecological understanding of the area. However this understanding mustn't simply come from a Polymet expert, but should be documented to be in cooperation with the DNR, the EPA and the MPCA.	VEG09
<b>Sender Name (Submission ID)</b> Nick Wharton (45237)		
9039	The risk to water quality is too high no matter how much metal is in the ground.	WR111
9044	At the moment, the technology that the mining companies use has proven to make its shareholders rich and the local people and environment poorer afterwards.	SO02
9057	The jobs it creates will come and go as all the others have and they will lie to the workers about their safety and their families safety.	SO02
<b>Sender Name (Submission ID)</b> Nickolas Felten (40201)		
6637	Yes, the mine will provide more jobs. However, I believe this is a very short sighted view. After all, cleaning up the poisoned waters of Norther MN will provide jobs too.	SO01
6638	I believe that such mining activities will put a great Minnesotan treasure, known as the Boundary Waters, in great jeopardy. Once ruined, these freshwater ecosystems cannot be brought back quickly and easily, if ever.	WILD02
6640	Please consider the long term effects that PolyMet will have before allowing them to mine and then regretting the decision for generations to come	CU15
<b>Sender Name (Submission ID)</b> Nickolas Kelley (54865)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nickolas Kelley (54865)		
19353	The dangerous sulfide mining operation threatens to pollute Minnesota for five hundred years or longer.... The sulfuric acid will be extremely dangerous if it gets into our water system. ... Lake Superior will be polluted for five hundred years or longer with toxic waste.	WR111, WR115
<b>Sender Name (Submission ID)</b> Nicktae Marroquin (54871)		
19398	I urge you to [reject] this mine, in the hopes that I will be able to let my children canoe and swim in the waters of Lake Superior. If this mine was accepted, our land and water would be polluted for at least 500 years	WR111, WR115
<b>Sender Name (Submission ID)</b> Nicole Hall (54185)		
17317	The Boundary Waters is a beautiful place that has many tourists and it brings people from all around. The mine might make the waters dirty and not as beautiful.	SO02
<b>Sender Name (Submission ID)</b> Nicole Hendrickson (19822)		
1382	I'm concerned about the wild rice and the fact that that area has a lot of water ways.	WR156
<b>Sender Name (Submission ID)</b> Nicole Johnson (19924)		
1509	Polymet could potentially ruin the forests of the animals that inhabit in this area, we are already really low in moose numbers and with this proposed mining it could really effect numbers more.	WI01, WI02
1512	There are also health effects that will increase in this area in which we have a clean environment... We will be breathing in increased mercury emissions, have exposure to asbestos-like mineral fibers, lead, and arsenic from copper mining. I feel it would not be best to do this in Northeastern Minnesota	HU03
<b>Sender Name (Submission ID)</b> Nicole Lindberg (9709)		
282	The proposed mine plan does not keep Minnesota's water safe and clean	WR115
283	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin spills	PD22
1366	PolyMet NorthMet environmental impact statement, which, in my view, is inadequate and demonstrates unacceptable environmental impacts.	NEPA09
1367	... the model used to predict impacts to water quality significantly under-represent pollution risks and used inaccurate conditions for water quality surrounding the mine site, demonstrating an unreliability in accurately predicting future water conditions.	WR044, WR149, WR172, WR173, WR174
1368	The proposed mine plan does not protect Minnesota taxpayersThe plan commits Minnesota to at least 500 years of polluted water treatment without providing critical information about who will pay for and be responsible for it. It can be assumed, that it will end up being the taxpayer, as it is hard to imagine how the company could be held responsible for centuries of costly water treatment, or how the public will be protected from liability.	FIN01
1369	The best case scenario for the mine anticipates at least 500 years of polluted water that will have to be actively treated.	PD03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nicole Nordman (54198)		
17239	This is a beautiful place and if you mine here you'll be taking away the beauty. Many people enjoy the boundary waters; mining here will make this place somewhere nobody wants to go.	LU04
17243	We can find other places to mined but we may not find another place as beautiful and as pure as the boundry waters.	SO01
<b>Sender Name (Submission ID)</b> Nicole Sippola (57351)		
18365	I find it difficult to trust that [PolyMet] will be there for the next 500 plus years, funding cleanup that may or may not be complete inside that amount of time.	FIN01
18366	there are areas of pollution where [the SDEIS] clearly states the status is unknown or there has been, "no action to date." Is this something that we are willing to leave our descendants with?...By adding to the pollution with our planet, we will be the ones responsible for the destruction of our planet.	PD01
18367	As a Minnesota native, I have grown up enjoying the outdoors, swimming in our many lakes and streams, as many others have done. I want to be able to share this love for the environment we live in with my children and grandchildren and I want to see this passed down for many generations to come.	LU06
18368	To think that these precious resources are at risk of being lost in exchange for 20 years' worth of jobs and only 25 percent of them promised to local Minnesotans is heartbreaking to me. While I understand that times are tough right now for many people, the fears that I have heard expressed that without the mine, these towns will become ghost towns, will be inevitable if this mine is built. With the amount of pollution that it will cause in the water and the wetlands of these communities, it will be more devastating for years to come.	SO01
<b>Sender Name (Submission ID)</b> Nicole Swensen (44604)		
12060	A beautiful Minnesotan area will be turned into a mine that can possibly pollute the boundary waters, a beautiful place where people can visit. Let's keep the mine away from the boundary waters because it is not needed	WILD02
<b>Sender Name (Submission ID)</b> Nijah Williams (54215)		
17665	we the students of como park senior ask that you do not do this kind of mining and not pollut our water with sufferic acid.	WR195
17666	Many people like to go [to the Boundary Waters] to get away from there everyday lives.	LU06
17667	There are many different wildlife and if this [mine] goes through they will have no where to go....	WI01
17668	mineing will cause a lot of pollution in the environment as shown in other places....	PD26
<b>Sender Name (Submission ID)</b> Nikki Crow (18120)		
3406	The reality today is sex trafficking is a mining issue and an environmental issue. How would PolyMet work to protect the vulnerable population of the communities they will be moving in? How will they help fund the organizations that work to help victims of trafficking and rape? How will they help to educate employees?	SO04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Nikki Crowe (42932)		
11968	What’s missing from the EIS is the socio-economic impacts of mining. ...Specifically, I am talking about the rise in sex trafficking and the increased demand for services to the women and children who are victimized by this crime....There is also an increased need in these areas for an elevated response from law enforcement, and ... the need for housing will become an issue as these women/children affected will need affordable and safe housing.	SO04
11971	How will Polymet work to protect the vulnerable population of the communities you will be moving into [from sex trafficking]? How will you support the organizations that work with the victims of trafficking and rape? How will you help to educate your employees to report suspected trafficking going on around them?	SO04
11975	Conduct a health impact assessment for the PolyMet project, and include the results of the assessment in the EIS. The HIA should include examination of all aspects of public health affected by the proposal, including analysis of the social determinants of health.	HU01
11977	Polymet provides training sessions to bring awareness to why trafficking is a problem for your company, the towns near to your operations, and your employees....Polymet needs to have a working relationship with organizations such as local law enforcement, victim service agencies, and medical staff at the local hospitals to be trained in providing services to trafficking victims.	SO04
14477	Socio-economic impact statements of mining often do not include the impacts from the rise of trafficking in mining towns. Mining and sex trafficking of women is becoming the norm in North Dakota mining towns.	SO04
<b>Sender Name (Submission ID)</b> Nikolas Bayuk (38118)		
13706	The Iron Range needs these jobs, the surrounding area's will benefit from the revinue, and the country will benefit from the resources.	SO10
13708	Polymet has passed the strong regulations set by all of their regulators and this should go straight to approval to start work.	PER34
<b>Sender Name (Submission ID)</b> No Name Provided (11602)		
14236	•Every sulfide mine located in a water-rich environment, like Minnesota, has polluted surface or groundwater with acid drainage and/or toxic metals.	WR023
14236	•Every sulfide mine located in a water-rich environment, like Minnesota, has polluted surface or groundwater with acid drainage and/or toxic metals.	WR023
14237	•PolyMet project could destroy or impair more than 8,260 acres of irreplaceable wetlands in St. Louis River watershed.	WET24
14237	•PolyMet project could destroy or impair more than 8,260 acres of irreplaceable wetlands in St. Louis River watershed.	WET24
14238	•PolyMet project would create cumulative harm in Minnesota's Lake Superior basin-drinking water supplies, streams and rivers that are already vulnerable due to pollution from other mines.	CU18
14238	•PolyMet project would create cumulative harm in Minnesota's Lake Superior basin-drinking water supplies, streams and rivers that are already vulnerable due to pollution from other mines.	CU18

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> No Name Provided (11602)		
14239	•PolyMet project would leak and seep sulfates and heavy metals into surface water and groundwater from: Mine Site: Waste rock heaps, including a permanent 526-acre waste rock heap adjacent to the 100-Mile Swamp and flooded mine pits, Plant Site: 226 million tons of sulfide mine tailings placed on top of the old LTV leaking tailings basin. New tailings dumps with high acid, sulfate, and toxic metal processing wastes.	WR070
14239	•PolyMet project would leak and seep sulfates and heavy metals into surface water and groundwater from: Mine Site: Waste rock heaps, including a permanent 526-acre waste rock heap adjacent to the 100-Mile Swamp and flooded mine pits, Plant Site: 226 million tons of sulfide mine tailings placed on top of the old LTV leaking tailings basin. New tailings dumps with high acid, sulfate, and toxic metal processing wastes.	WR070
14240	•PolyMet puts human health at risk – increased arsenic, manganese and other contaminants in our drinking water and mercury contamination of fish (increased cancer, harm to the human brain).	HU03
14240	•PolyMet puts human health at risk – increased arsenic, manganese and other contaminants in our drinking water and mercury contamination of fish (increased cancer, harm to the human brain).	HU03
14241	•PolyMet threatens fish habitat, natural wild rice, tribal resources and a way of life based on the great outdoors.	CR01
14241	•PolyMet threatens fish habitat, natural wild rice, tribal resources and a way of life based on the great outdoors.	CR01
<b>Sender Name (Submission ID)</b> Noah Filla (54338)		
17352	I think my biggest concern is your plan to borrow water from Colby Lake if there is a shortage. As stated in your facts document, shortfall in water requirements would be made up by withdrawing raw water from Colby Lake using an existing pump station and pipeline. What happens if there is a problem with the existing pump and pipeline? What happens if they break? How do you then make up the water shortage? What other source do you have as a back-up? I understand the computer models showed it the water requirements would effect the area, but there is no way this can be guaranteed. Colby Lake, as stated in the fact's document has many tributary streams. This project could have negative effects on all of them if there are any problems.	WR131, WR140, WR181
17353	My other big concern is how this project will effect the wetlands. At a minimum if damage, Polymet, is required to replace only 913 acres near, but not on the project site. Also, the document doesn't cover how the wildlife of the wetlands is affected. It only covers the seepage, waste rock, overburden stockpiles. In summary, it seems to only cover the fragmentation of the wetlands, not how it could actually hurt the wildlife of those wetlands.	WET04, WET05
17572	It first appears that many new jobs would be created and that everything possible would be done to protect the environment. However, upon reading the material, there is no solid documentation of how long the clean up after the project would last, exactly what it would entail, and what if there are more issues than are predetermined?	PD01
17573	I am for a project that will create jobs because I understand there is a great need for jobs in this state and all other states. However, I am not for destroying the environment without more documentation on how it will affect water quantity and quality.	SO02
<b>Sender Name (Submission ID)</b> Noah Shavit-Lonstein (58149)		
19934	I think it is absurd to destroy five centuries of water for 360 jobs (or less) that will disappear quickly.	SO01
<b>Sender Name (Submission ID)</b> Nora Nell Hamburge (40424)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Nora Nell Hamburge (40424)		
14347	Wetlands have been decimated in Minnesota the past 5 years alone.312 square miles! These natural resources cannot be replaced easily, if at all. Time to protect them.	WET24
<b>Sender Name (Submission ID)</b> Nora Smyth (16938)		
11021	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> norbert heimann (47174)		
8528	Elements of the proposal and the environmental safeguards involve monitoring waste and waste water for decades, perhaps centuries. The overall costs to monitor and/or treat waste products is not and cannot be realistically estimated.	FIN05, FIN11
<b>Sender Name (Submission ID)</b> Norm Herron (21540)		
1286	Can the DNR be assured that any leakage of toxic chemicals into all land and waters adjacent to the mine site be monitored by either a third party or the DNR to be cleaned as soon as detected?Will Polymet be responsible for the cost of cleaning up all toxic discharges indefinitely?	FIN01
1287	Will the residents of Minnesota have first priority for the employment related to the construction and extraction process?Will the DNR be assured that tourism will not be adversely affected by the mining?	SO02, SO06
1288	Will the DNR be assured that the natural attraction of the Boundary Waters Canoe Wilderness and adjacent lakes and rivers be protected from any degradation?	WILD02
1290	Will the DNR be assured that the wild rice areas will be protected from toxic chemicals?	WR156
11167	Can the DNR be assured that any leakage of toxic chemicals into all land and waters adjacent to the mine site be monitored by either a third party or the DNR to be cleaned as soon as detected?	WR039, WR139
11173	Will Polymet be responsible for the cost of cleaning up all toxic discharges indefinitely?	FIN01
11176	Will the residents of Minnesota have first priority for the employment related to the construction and extraction process?	SO06
11178	Will the DNR be assured that the natural attraction of the Boundary Waters Canoe Area Wilderness and adjacent lakes and rivers be protected from any degradation?	WILD01
11179	Will the DNR be assured that tourism will not be adversely affected by mining?	SO02
11182	Will the DNR be assured that the wild rice areas will be protected from toxic chemicals?	VEG04
11439	I do not support sulfide mining in an area so rich in clean waters. I understand the need for mineral exploration to meet the global demand for copper, but I am wary of mining in a fragile and vulnerable area such as northern Minnesota.	WR195
11443	Can the DNR be assured that any leakage of toxic chemicals into all land and waters adjacent to the mine site be monitored by either a third party or the DNR to be cleaned as soon as detected?	PER03

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Norm Herron (21540)

- 11444 Will Polymet be responsible for the cost of cleaning up all toxic discharges indefinitely? FIN01
- 11446 Will the residents of Minnesota have first priority for the employment related to the construction and extraction process? SO06
- 11447 Will the DNR be assured that the wild rice areas will be protected from toxic chemicals? VEG04
- 11450 Will the DNR be assured that the natural attraction of the Boundary Waters Canoe Wilderness and adjacent lakes and rivers be protected from any degradation? WILD02
- 11452 Will the DNR be assured that tourism will not be adversely affected by the mining? SO02

**Sender Name (Submission ID)**    Norm Voorhees (18337)

- 14619 PolyMet to me seems that they are proposing to do something responsibly from everything that I have been able to learn. And we have got the regulatory agencies here to make sure that that happens. PER34

**Sender Name (Submission ID)**    North American Water Office  
 (42903)

- 19025 The current proposed copper---nickel mining boom would cause water pollution that would contaminate vast amounts of our sacred water in particular the St. Louis River system with heavy metals such as mercury, lead, arsenic, cadmium, selenium, zinc, cobalt, nickel and antimony, and would not be clean again for at least 500 years. WR064, WR107, WR108
- 19027 Who pays for adverse impacts that will occur if PolyMet and others are allowed to cause this pollution? Has a bank account been established with the necessary funds deposited? FIN01
- 19029 Water contamination would produce monetary and market share advantages for corporations such as Glencore/Polymet and would produce short---term economic benefits for its stakeholders and a limited number of employees, but not for the citizens of Minnesota for many generations to come, or Indigenous Peoples SO01
- 19030 Yes, jobs provide benefits, but a few hundred jobs for 45 years versus the permanent loss of land use for close to a thousand acres of wetland and water contamination in perpetuity for all practical purposes is an extraordinarily bad exchange from a public interest perspective. Where is the analysis that compares jobs created by mining against jobs lost in tourism and recreation, and job-equivalence from subsistence living that are lost due to pollution? SO01
- 19032 Destruction of wild rice habitat = no rice = irreparable harm to Anishinaabeg way of life and cultural impairment. (...) Wild rice is an identity food for Anishinaabeg Peoples and is revered as a sacred food. CR01
- 19033 Wild rice beds within a) the land base projected for development in the Polymet Mine area and b) the surrounding watersheds that could be impacted by runoff from the mine must be identified and protected from contamination. WR154

**Sender Name (Submission ID)**    Northeastern Minnesotans for  
 Wilderness (42985)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
4092	The hard look that NEPA and MEPA require is not possible if the impacts of a project are not clearly stated, are hidden away in background materials, or are discounted in the text. NEPA and MEPA’s primary purpose is also thwarted if the discussion of impacts is based on a model that uses inputs that do not reflect reality. The SDEIS uses all these methods to hide the potential impacts of this project from decision makers and the public.	NEPA14
4093	The primary error in modeling lies in the estimate of baseflow in the Partridge River, which is based on a flow gage seventeen miles downstream of the mine site. While models using data with this degree of uncertainty are sometimes accepted when no other information is available, in this case, enough flow data from further upstream was available to let the agencies know early on that the modeling approach would not accurately reflect the site.	WR003
4095	Because PolyMet calibrated other model parameters to erroneous flow data for the Partridge River, the hydraulic conductivity and recharge values likely significantly underestimate the rate at which groundwater flows through the site. See GLIFWC Memo, March 2, 2012, SDEIS App. C, Sub. 1.	WR003, WR052, WR086, WR091
4096	The Agencies must provide an explanation of changes that were made in response to the GLIFWC March 2, 2012 Memo and how those changes are reflected in the modeling and predictions presented in the SDEIS.	WR003
4097	The use of data known to be inaccurate for a key modeling parameter does not comply with NEPA , which requires accurate scientific analysis and integrity. 40 C.F.R. §§ 1500.1(b), 1502.24. Furthermore, the Agencies’ response to GLIFWC’s position does not meet the NEPA requirement that the Agencies consider and respond to “any responsible opposing view,” id. § 1502.9(b), because that response ignores the underlying issue of the inherent inability of the model’s approach to accurately reflect stream flow in a losing stream.	NEPA08, NEPA14, WR003, WR189
4098	In addition to the lack of clarity regarding hydraulic conductivity parameters, the SDEIS is unclear as to whether a range of values were used in the model, and if so, the range of possible outcomes on water quantity, both as inflow to the mine and as flow in the Partridge River. ... in addition, the absence of a discussion of uncertainty is misleading to decision makers and the public, and violates NEPA.	WR189
4099	The predicted changes in stream flow at various monitoring points are given in Table 5.2.2-25, and the predicted inflow to the mine pits is given in Table 5.2.2-18. Unlike water quality predictions, there is no discussion of uncertainty and no discussion of the potential range of pit inflow or of stream flow impacts in the accompanying text for either issue.	WR086
4100	If the model cannot accurately predict the level of groundwater drawdown, how can the impacts on groundwater inputs to the Partridge River or the groundwater inflow to the mine be predicted with any certainty? Yet the SDEIS presents predictions for these parameters as if they were based on solid information.	WR086, WR179
4101	Adding to the problem in regard to river drawdown, the table showing the predicted drawdown to the Partridge River omits information for SW-003. This is a curious omission that does not seem to be reflected anywhere else in the document. In reviewing groundwater elevation contours found in Figure 4.2.2-5, SDEIS 4-49, it appears that groundwater at SW-003 slopes down-gradient to the east, despite the presence of the river. It thus seems likely that there is very little groundwater input from the east side of the river to balance the loss of groundwater to the East Pit during mining. ... The SDEIS should provide both the modeled drawdown at SW-003, and an explanation of the area used for groundwater inputs to the river and how those inputs correlate with the groundwater elevation contour map.	WR179

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
4102	A review of both the predicted river drawdown and the predicted mine pit inflow is further hindered by a lack of references in the SDEIS text, or possibly the absence of anything other than raw data in the record to provide further explanation. ... Significant drawdown of the Partridge River would be a significant environmental impact pursuant to NEPA and MEPA, and the inability to review the conclusions in the SDEIS is a significant flaw in the document.	WR086
4104	Because all surface discharges are planned to occur at the Tailings Basin during the life of the mine, the amount of inflow has significant implications for the Water Collection System and the amount of contaminated water escaping capture at the Tailings Basin. The amount of inflow is also likely to impact the amount of financial assurance that will be required.	WR019
4117	According to the SDEIS Executive Summary ... wastewater releases from the NorthMet Project “would not cause or increase the magnitude of an exceedance of the groundwater and surface water evaluation criteria at the P90 level for any of 28 solutes at 29 evaluation locations.” ... the “29 evaluation locations” are placed in such a way that they do not assess some of the areas that are most likely to be impacted by the project. One of these areas is a three-mile (or longer) stretch of the Partridge River that is likely to receive discharges above water quality standards.	WR058, WR064, WR086, WR089, WR177
4118	The first “evaluation location” below SW-003 and the Category 2/3 Stockpile and East Pit flowpaths (SW-004) is located more than three miles downstream. As explained above, this stretch is unlikely to have a significant inflow of clean groundwater from east of the river, because the groundwater elevation drops moving east from the river... Thus both the modeling and the monitoring of water quality at SW-004 are unlikely to reflect the water quality of the stretch of the river most impacted by the Category 2/3 Stockpile and East Pit.	WR177
4120	Unfortunately, the table [Table 5.2.2-22] includes only the “Groundwater Evaluation Criterion” and does not reveal the surface water quality standards that actually apply at this point. Despite the clear availability of this information, nothing in the text reveals the fact that discharge to the Partridge River through the East Pit/Category 2/3 Flowpath at the P90 level is predicted to violate water quality standards for both aluminum and cobalt.	WR109, WR177
4123	the SDEIS should disclose that at the P90 level, groundwater in the West Pit flowpath is predicted to violate the surface water quality standard for cobalt (by a factor of 5) and lead at the point of discharge to the river. ... Furthermore, as discussed below it is highly unlikely that mechanical treatment will continue until the point when groundwater outflow from the West Pit meets surface water quality standards.	WR038
4124	Figure 6-126 of the Water Modeling Data Package Vol. 1 (PolyMet Mining 2013i) indicates that the aluminum exceedance in the East Pit flow path would extend over a period of roughly 40 years. A figure that was included in the May 2013 internal review draft (Fig. 5.2.2-19 on page 5-89) (Ex. 16) but does not appear in the final SDEIS indicates that the cobalt exceedance would extend over a period of almost 100 years.	WR177
4128	SDEIS Table 5.2.2-22 under-predicts the level of contaminants in the East Pit flowpath at the earliest point of discharge to the river. ... The modeling apparently assumed that SW-003 would not be impacted by polluted groundwater, but that the point just below it would. ... The importance of this groundwater evaluation location lies in the fact that this is the closest downgradient point that the property line comes to any of the sources of contamination, and thus this is an important point at which to assess potential water quality impacts.	WR177
4131	What is unclear is why this point is not also used to assess surface water quality impacts, as the property line and the Partridge River meet at this point. The SDEIS does not clearly reveal where the solute concentrations shown in Table 5.2.2-22 would occur. However, Table 5.2.2-8 lists the various groundwater flow paths and the distance to where they meet the property line and the Partridge River, and Figure 5.2.2-4 indicates points of discharge of groundwater to the Partridge River and groundwater evaluation locations. According to Table 5.2.2-8, the distance to the property boundary from the Category 2/3 Stockpile is 140 meters, while the distance to the Partridge River is 955 meters. Yet the river is located at the only “groundwater evaluation location” shown on Figure 5.2.2-4.	WR177

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
4149	There seems to be very little information available on water quality at the property boundary for the East Pit flow path...the Water Modeling Data Package does include a graph for sulfate, Figure 6-69, PolyMet 2013i at 209. The maximum P90 sulfate level at the property boundary is shown as approximately 29 mg/L, while Table 5.2.2-22 shows the sulfate level at the river as 21.6 mg/L. But according to the map, the closest point to the property boundary and the river are the same. It thus appears that the scant information that does exist regarding water quality discharge to the Partridge River from the East Pit Flowpath significantly understates contaminant levels by overstating the distance the contaminated water will travel before it arrives at the river.	WR058, WR167, WR177
4158	In regard to copper, Large Figure 47 from the Water Modeling Data Package Vol. 1 (PolyMet 2013i) indicates that levels will range around 5 ug/L at the property boundary, while Table 5.2.2-22 gives a concentration figure of 3.4 ug/L for discharge to the river. Once again, because the closest distance to the property boundary and to the river is the same, it seems that Table 5.2.2-22 likely understates the level of copper discharging to the river...Based on these figures, we believe that the copper standard may be exceeded in addition to the aluminum and cobalt standards.	WR177
4165	the NorthMet project as proposed will, in fact, contribute aluminum to groundwater flows to the Embarrass River tributaries during the time that Colby Lake water is used to augment flows. See Water Modeling Data Package Vol. 2 (PolyMet 2013j). While this addition of aluminum may be small, and may even be less than the amount of aluminum that would have been added to groundwater under the continuation of existing conditions, aluminum from the NorthMet project will add to aluminum in downstream waters, thus contributing to the violation of the water quality standard.	WR082, WR177
4168	The SDEIS discussion of lead exceedances in Embarrass River tributary streams appears to be downright dishonest...The SDEIS does not tell us what the quality of the WWTP discharge will be, but apparently PolyMet expects to be allowed to discharge at the water quality standard based on the hardness of its discharge, see id. Table 5-17, i.e., 3.0 ug/L.	WR063, WR147
4169	Furthermore, the statement that lead in surface runoff shows a ten percent chance of exceeding the standard at any given time appears to be incorrect; Water Modeling Data Package Vol. 1 Figure 6-108 shows an exceedance probability of about five percent. If this was a discussion of lead levels in water from the NorthMet project, this five percent probability would be eliminated from discussion as being above the P90 probability level. If one hundred percent of modeled exceedances for natural runoff are included in the analysis, one hundred percent of the modeled exceedances for the Proposed Project should also be included.	WR110, WR189
4170	In any event, the highest lead concentration shown for natural runoff is 1.8 ug/L, at an approximately 99% probability level. Id. Fig. 6-108. This is significantly below the presumed level of the WWTP discharge and the maximum predicted lead levels in Embarrass River tributary creeks, which range as high as 3 ug/L. Table 5.2.2-32, SDEIS 5-183. In comparison, the highest predicted lead concentration in the creeks under the "continuation of existing conditions" scenario is 1.3 ug/L. The gist of the whole situation appears to be that PolyMet will discharge lead at a level just below the standard based on the hardness of its discharge, and that natural conditions will reduce the hardness of the water to the point where the lead exceeds the water quality standard. Blaming that scenario on natural runoff is disingenuous in the extreme.	WR059
4171	Under the Clean Water Act, the application of hardness-dependent water quality standards is based on the receiving water, and downstream standards must be met even where the hardness of the water varies. If downstream waters have a lower hardness level and thus a lower standard, pollutants in the discharge must be reduced to the point where they will meet the lower standard.	PER09
4174	The Minnesota Environmental Policy Act precludes the DNR and Minnesota Pollution Control Agency (MPCA) from issuing permits that would result in the pollution, impairment, or destruction of natural resources. Minn. Stat. §116D.04(6). Neither statute is limited to situations where the proposed activity violates some other environmental protection statute or regulation. Thus regardless of whether the predicted exceedances are deemed compliant with the Clean Water Act, they do not comply with Minnesota law.	PER09

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
4176	The Embarrass River is listed as impaired for Fishes Bioassessments...any increase in pollution that might contribute to the impairment cannot be permitted. The SDEIS provides no information about the impact of aluminum on aquatic organisms, and in regard to lead says only that “Effects on aquatic biota from the lead exceedance due to changes in hardness are not well-understood, but would likely increase the potential to adversely affect aquatic life.” SDEIS 5-380. To comply with NEPA and MEPA, the SDEIS must provide substantially more information on the likely impacts of aluminum and lead exceedances on the aquatic community.	AQ07, AQ11, WR064
4179	The SDEIS fails to assess the impacts on any of these [Plant Site] tributary streams at the point where the water collection system, discharge water, and groundwater seeping from the Tailings Basin will first impact them. ... All of these [evaluation points shown on Figure 5.2.2-6] points are significantly downstream of the point where the Tailings Basin currently impacts them (i.e., at their headwaters).	WR063, WR064, WR115, WR124
4181	the discussion on groundwater travel distances at the Plant Site does not disclose whether a range of values were used in modeling this critical parameter, nor what those values were. The SDEIS must explain what parameters and variables were used to obtain the predictions shown on Table 5.2.2-42, including the point or range of points at which contaminated groundwater is first presumed to release to surface water.	WR167
4182	The apparent idea seems to be that any water escaping the collection system would escape at the bottom of the barrier, and would move a significant distance before emerging at the surface. However, the SDEIS does not actually say this, or explain the barrier system sufficiently to support the hypothesis. Figure 3.2-28 shows a “Cutoff Wall,” and the text directs the reader to the description of the Cutoff Wall for the Category 1 Waste Rock Stockpile, which it describes as “similar.” In both places, details are scant as to what the wall will be made of; how it will be constructed; what the target permeability means in regards to leakage; how likely it is that PolyMet will achieve the target permeability at all locations of a four-mile, underground wall; and whether occasional breaches in the wall due to construction methods and materials may allow for significant escape of groundwater at locations that cannot be identified before they occur. Furthermore, neither discussion provides any citation to reference materials.	PD15, WR019
4183	Given the current conditions of completely saturated soils and standing water immediately below the basin, and these statements from the SDEIS, it seems likely that groundwater escaping the Collection System will discharge into fully saturated conditions, where it is likely to mix with water discharged to the surface in close proximity down-gradient of the Tailings Basin.	WR060
4186	The Water Modeling Data Package includes figures for only a few of the constituents, which are listed here as examples. The predicted levels of all constituents in groundwater at the base of the Tailings Basin should be included in the SDEIS...The SDEIS needs to clarify the range of distances to where this water is predicted to mix with surface water, and provide adequate explanation to support that range of distances...All surface water evaluation points presented in the SDEIS are located at or beyond the property line, which begs the question of how these points were chosen. Minnesota’s surface waters must be protected regardless of their location on private property.	WR059, WR064, WR177
4187	As for sulfate, although the 10 mg/L standard to protect wild rice is not being applied at this location, this sulfate is likely to be discharged to wetlands at a level that seems very likely to affect the methylation of mercury and resultant level of mercury in fish tissue.	MERC09
4191	For pollutants that are based on hardness, this [WWTP] discharge may meet the standard at the point of discharge but fail to do so once the hardness is diluted by rainwater and natural groundwater. This appears to be the situation for lead; because no analysis of the headwaters was done, no conclusion can be drawn regarding copper, which is also of concern.	WR082

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<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
4196	The Proposed Project will also have a significant impact on water quantity in the headwater streams...the document lacks clarity regarding the amount of water to be discharged [for augmentation], listing minimum requirements and maximum allowances, but providing no discussion of the degree to which the amount of water discharged is expected to maintain the hydrology of wetlands and streams immediately below the discharge point. See SDEIS Tables 5.2.2-40 and 5.2.2-41. Will the minimum required augmentation shown on Table 5.2.2-41 be increased if wetlands and stream flow disappear within the PolyMet property, or will an increase not be required until the flow at MCL-3, TC-1, or PM-11 drops below 80% of its historic flow? And will that 80% be measured in accordance with historic seasonal variation, or will it be based on average or low flow conditions regardless of the season?	WR183, WR185, WR186
4199	Finally, the SDEIS provides virtually no information on planned monitoring points. As discussed below, apparently no monitoring is planned for the tributary streams. The SDEIS must provide a plan for monitoring water quality and aquatic biota as well as flow in the Embarrass River tributaries, beginning at their historic sources.	PD05
4201	Although the SDEIS mentions air deposition as a potential source of metals and sulfur inputs to wetlands, the discussion provides no information about the amount of deposition other than a line delineating the boundary of the area within which deposition will be greater than 100% of background levels. The SDEIS provides no assessment of the impacts on water quality from the predicted amount of deposition...First, the SDEIS does not provide information on the amount of sulfur or metals that will be deposited within the “greater than 100% of background levels” line...Isopleth maps for copper and nickel deposition based on modeling to assess deposition...The type of information is crucial to an understanding of impacts, and must be provided in the NorthMet SDEIS.	WET11
4202	the rationale for using 100% of background level as a cutoff for impacts relates only to designing a monitoring plan. No scientifically valid support whatsoever is given for the assertion that there will be no impacts in areas where deposition is increased by less than 100% of background levels. Whatever its validity as a rough cut-off for monitoring, in regard to impacts this number is clearly arbitrary. Rather than providing a justification for using this cut-off, PolyMet needs to provide an explanation of the impacts on water quality at this level of deposition, and a discussion of why areas with less deposition will neither experience impacts themselves nor contribute to impacts downstream.	WET11
4211	The SDEIS must provide information on the deposition of specific metals and sulfur, especially those that are expected to be emitted in large amounts and/or to present a water quality problem due to other source pathways. The former includes copper, nickel, manganese, and sulfur. The latter includes these plus cadmium, cobalt, lead and zinc. Apparently neither cobalt nor zinc were included in the speciation assessment, yet they are present at higher levels in the emissions than some of the other metals that were included.	AIR10, WR151
4220	the SDEIS makes no predictions about the impacts of air deposition of either metals or sulfur on water quality. The entire point of the exercise is to assess whether this source of metals and sulfur to the environment will result in levels of metals or sulfur in wetlands that would contribute to water quality standard violations or otherwise contribute to environmental effects (such as increased mercury methylation, degradation of high quality waters, or toxicity to aquatic life or wildlife due to metals for which there are no numeric standards)...While we support monitoring to assess the impacts of air deposition should this Project go forward, the promise of monitoring cannot be used to circumvent the requirement that impacts be assessed before the project is approved.	AIR10, WR151
4224	The “100% deposition line” at the Plant Site covers an area of several square miles. SDEIS Figure 5.2.3-23. The area overlaps the headwaters of Second Creek. The statement that “No potential indirect wetland effects from fugitive dust to Second Creek would occur,” SDEIS 5-302, is misleading, primarily because the discussion does not clearly separate impacts due to dust from impacts due to metals. The statement thus leads the reader to believe that there will be no impacts from air deposition on Second Creek. However, the SDEIS cites PolyMet 2013k, which states that metals deposition could have an impact on Second Creek (as opposed to dust, which according to this document, would not).	WET11, WR151

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
	<b>Sender Name (Submission ID)</b> Northeastern Minnesotans for Wilderness (42985)	
4228	SDEIS Figure 5.2.3-23, which pertains to metals, indicates that there would be effects on Second Creek. Furthermore, it appears from Figure 5.2.3-22 that there could be significant impacts from dust on Spring Mine Creek.	WET11, WR117, WR151
4233	The SDEIS evaluates impacts to groundwater at the property boundary in several locations at both the Mine Site and the Plant Site. It does not disclose the quality of groundwater that will be left at the Mine Site or the Tailings Basin throughout the centuries during which this pollution will continue. ... The SDEIS makes no mention of this requirement [Minn. R. 7060.0500], and thus also does not explain whether or how the project will meet the requirement...While variances are available under the groundwater rules, see Minn. R. 7060.0900, the SDEIS says nothing about PolyMet applying for a variance, and provides no basis whatsoever for the use of the property line as a compliance boundary.... The MPCA has apparently been using property lines as compliance boundaries for groundwater contamination as a matter of standard practice, according to a personal communication with Richard Clark of MPCA on January 11, 2014...the SDEIS must disclose the predicted quality of groundwater at the Mine Site during the proposed mining operations and after closure, including within the East Mine Pit porewater and below each of the mine features. The SDEIS must also disclose the predicted quality of groundwater within the Tailings Basin and immediately below the Tailings Basin Dams and other seepage locations.	PER06, PER09, WR038, WR060, WR109, WR173
4242	the SDEIS predicts a decrease of 1.2 grams in the annual mercury load to the Partridge River, and an increase of 0.6 gram to the Embarrass River, with a net decrease to the St. Louis River of 0.6 gram. The SDEIS does not say what was included in these estimated loads, nor does it explain that the increased load from the project's air emissions will be significantly greater than that 0.6 gram. The SDEIS assesses the increased load from emissions to five area lakes (ignoring the Partridge and Embarrass Rivers) and dismisses the increase as insignificant, in direct contradiction to the clear government policy that any increase in load to the Lake Superior basin must be considered significant.	AIR02, MERC04, MERC20, MERC23
4245	The SDEIS does not so much as mention the Lakewide Management Plan, and it certainly does not address the zero discharge and emission goal. While five pounds of mercury emissions may not seem like a large amount, it does impact the zero discharge goal and it will increase the load to local water bodies. In order to consider all relevant factors and take the required "hard look" at the anticipated environmental consequences, the SDEIS needs to disclose that the Proposed Project will not comply with the LaMP.	MERC01, PER27
4246	In addition, the assessment of mercury releases from the Proposed Project to the Partridge and Embarrass River (and beyond to the St. Louis River) omits mercury from a number of sources. In fact, the only inputs of mercury to the rivers that the SDEIS discloses seem to be those that are discharged from the Waste Water Treatment Plant and Waste Water Treatment Facility. The estimate of increased or decreased loading to the rivers leaves out mercury from air deposition, from leaching to groundwater, and from the transfer of Colby Lake water. When these sources are accounted for, the statement that overall, the project would decrease mercury loading to the Partridge River and to the downstream St. Louis River, e.g. SDEIS 5-8, is simply untrue.	MERC20, MERC23
4247	Despite indications from humidity cell tests that leachate from waste rock will have a mercury level of almost five times the surface water quality standard, PolyMet did not include mercury in its water quality model, and the SDEIS provides no estimate of the potential discharge of mercury from the stockpiles and pit lakes to the Partridge River via groundwater. ... We were unable to find a more thorough description of the NTS lab tests or any quality assurance/quality control information in the record.	MERC04, MERC11, MERC20
4253	While we agree that the low-level mercury data from the humidity cell tests is insufficient, this factor was entirely within the Agencies and PolyMet's control. If the Agencies now want to plead insufficient data, at the very least NEPA regulations require them to explain why they were not able to obtain it, and to provide an evaluation of the potential for increased loading to the Partridge River "based upon theoretical approaches or research methods generally accepted in the scientific community." 40 C.F.R. § 1502.22(b)(4).	MERC06

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4260	[The SDEIS] states that the proposition that “taconite tailings appear to be a sink for mercury in full-scale actual tailings basins in northern Minnesota, at least similar to other media like soils . . . is supported by surface and groundwater monitoring around the existing LTVSMC Tailings Basin, which found mercury concentrations consistent with baseline levels (see Table 4.1-31), generally averaging less than 2.0 ng/L.” SDEIS 5-202. This statement in regards to groundwater appears to be blatantly false. And an attempt to learn more from Table 4.1-31 was thwarted by the fact that there is no Table 4.1-31.	EDIT01
4262	the SDEIS defends the use of 1.1 ng/L [mercury] by reference to a bench study by NTS. SDEIS 5-206. The text provides a reference of NTS (2006), but no corresponding document can be found in the reference list. However, a description of the test is found in Appendix C of Barr 2007e (which we came across in search of something else)...The conclusion that NorthMet tailings will remove mercury from tailings basin water thus appears to be unfounded.	MERC06
4270	[The SDEIS requires] an analysis of mercury discharge to surface water from groundwater using a realistic estimate of mercury concentrations in groundwater leakage from the tailings basin.	MERC20
4278	Inputs to the West Pit mass balance from watershed run-off (from both undisturbed surfaces and from the East Pit) are estimated at 4 ng/L. Table 5.2.2-50, SDEIS 5-203. Despite the availability of an MPCA method for estimating mercury inputs from terrestrial deposition, which was actually used for the air emissions analysis for this project, this number was based on “the total mercury concentrations observed in the Partridge River (the recipient of watershed runoff under current conditions).” PolyMet 2013i at 313. Our understanding of the MPCA method is that it is based on mercury in deposition, one-quarter of which is estimated to enter surface water. While it is unclear how this would ultimately compare to the 4 ng/L for the volume used in the mass balance, the use of the concentration in the river as a proxy seems a poor substitute.	MERC12
4279	Inputs from the East Pit porewater are estimated at either 3 ng/L (as reported in the text of the Water Modeling Data Package, id., or 4 ng/L (as reported in Table 5.2.2-50). The text states that this is based on background groundwater concentrations. As discussed above, it appears that the waste rock (which will fill the East Pit) does leach mercury. Based on the humidity cell tests, a more appropriate value for East Pit porewater would be at least 6.5 ng/L.	MERC12
4290	To comply with NEPA, the SDEIS must provide an analysis of the deposition of mercury from air emissions for the rivers and their tributaries, and that analysis must include mercury emissions from the mine site. . . . At the mine site, all of the area within one kilometer of the ambient air boundary is within the Partridge River watershed. It thus seems likely that close to 100% of the 288 grams of mercury emissions would be deposited within the Partridge River watershed. If twenty-five percent of that mercury reaches surface water, it would amount to 72 grams of mercury. Even if half of it settles in areas where it would be routed to process water and the treatment facility, it would still be a significant amount of mercury, particularly when added to deposition from the Plant Site.	AIR05
4292	According to the analysis done for the lakes based on Plant emissions, between 3.76 and 15 grams of mercury would be added to Colby Lake through the Partridge River watershed and between 4.75 and 19.64 grams would be added to Wynne Lake through the Embarrass River watershed. Barr 2013k, App. F. It appears from Large Figure 7 of the same document that the numbers would be similar for the Partridge and Embarrass Rivers, respectively, because most of the watersheds flow to the rivers before entering the lakes. In other words, most of this mercury enters the rivers before it enters the lakes. The SDEIS needs to provide the same analysis for the rivers that it provides for the lakes. This analysis must also be applied to those tributary streams that would be more heavily impacted than the river as a whole.	WR064, WR177

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4293	The SDEIS must then include input from air deposition in the load analysis. The assessment of mercury load to the Partridge River predicts a net decrease from 24.2 to 23.0 grams per year; the assessment for the Embarrass River predicts a net increase from 22.3 to 22.9 grams per year. These figures apparently do not include deposition; what they do include can only be guessed. It is certainly not clear to the average reader that the largest source of mercury from the project has been left out of the equation entirely.	AIR05
4294	The cumulative impacts assessment points to the statewide TMDL to address this problem. SDEIS at 6-63. But the TMDL has been acknowledged as insufficient to address the problem in Northeastern Minnesota. When the TMDL has been completely implemented and a 93% reduction is achieved, Wynne Lake (for example) will still be subject to fish consumption advisories. If the NorthMet project were operating at that point, it would be contributing 17% of the load to Wynne Lake, which is clearly significant. Yet the same amount of mercury is now being dismissed as too small to contribute to the problem.	MERC22
4467	The SDEIS makes the remarkable statement that the contribution of mercury from Colby Lake makeup water at the Plant Site would be “minor.” SDEIS 5-205. ... Colby Lake is on the impaired waters list for mercury in fish tissue. ... PolyMet plans to release this water to headwater streams at a point where the current mercury levels average 1.0 to 1.2 ng/L. See SDEIS Tables 4.2.2-4 and 4.2.2-34. The change will mean that the streams no longer meet the water quality standard at their headwaters, and downstream exceedances will increase. Ultimately, the use of this water will increase the load to the Embarrass River between 3 and 6.5 grams per year, which is an increase of between 14 and 27 percent. The SDEIS is scant on information about mercury in Second Creek, but the discharge of Colby Lake water would increase the mercury exceedances there as well...discharge is at least regulated under state law.	MERC01
4472	Adding to the mix is a lack of information about the augmentation plan. The SDEIS provides a minimum and maximum release amount, but does not describe how the amount of release will be set or how it will change based on the project’s needs and/or impacts on wetlands and streams. If it is similar to other mining operations, it will fluctuate according to the needs of the project. If this is the case, another factor that increases mercury methylation will also be present, i.e., water level fluctuations.	WR112, WR183
4474	[The SDEIS] concludes that because the WWTP will limit sulfate in its discharge to 9 mg/L, sulfate “would not be expected to promote mercury methylation.” SDEIS 5-208. However, 9 mg/L is significantly above historic background levels, and the SDEIS cites nothing that indicates that a sulfate level of 9 mg/L does not promote mercury methylation. While the science is not yet definitive, it is entirely possible that 9 mg/L sulfate promotes mercury methylation as effectively as does 30 mg/L, and more effectively than does 100 mg/L. While the reduction in sulfate levels in discharges to the environment is overall a positive step, this does not negate the fact that sulfate discharges will continue to promote mercury methylation.	MERC08
4479	The initial stage of preparation for mining will involve stripping the vegetation and soil from the area to be mined. SDEIS 3-2. This material will contain sequestered mercury from historic precipitation and dry deposition. This is a particular concern in regards to the peat overburden, as peat is known to sequester mercury. The SDEIS does not seem to include an estimate of mercury releases from this source. ... In general, the mass balance exercises do not consider the amount of mercury released from rock and other materials in assigning a value to process water concentrations. Rather, mercury concentration values are simply guesses based on current mercury levels in precipitation and (in some cases) groundwater, along with questionable assumptions regarding the adsorption capacity of tailings, rock, and soil.	MERC11, MERC20

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4481	Finally, PolyMet plans to use the overburden material for many construction and reclamation activities in many locations. See PolyMet 2012s at 26-30. Uses of unsaturated overburden and peat are not specified; the material would be available for any use in any location where soil or rock is needed. The potential mercury releases from this material must be assessed. Precipitation events and snowmelt are known to cause spikes in mercury levels in local streams, particularly in watersheds that are partially deforested. See MPCA, “An Assessment of Lake Superior Basin Tributaries” (2002) (Ex. 24), and E. M. Ruzycski , R. P. Axler , J. R. Henneck , N. R. Will & G. E. Host, “Estimating mercury concentrations and loads from four western Lake Superior watersheds using continuous in-stream turbidity monitoring,” 14 Aquatic ecosystem 4:422 (2011) (Ex. 25). The potential increases of mercury from disturbed peat and other overburden materials during runoff events must be included in the SDEIS’ assessment of mercury loads to tributary streams and the Partridge and Embarrass Rivers wherever this overburden material might be used.	MERC20, MERC21, REF01
4483	To a great extent, the SDEIS avoids discussion of potential impacts of the Proposed Project by assuming that mitigation measures will be completely successful. In many situations, no support is provided for these assumptions. The SDEIS does not discuss the track record of the mining industry or the success rate of the chosen mitigation measures at other mines. The SDEIS thus does not take the requisite “hard look” at mitigation measures... The PolyMet SDEIS relies heavily on mitigation measures to meet water quality standards and otherwise reduce environmental impacts, with many of these measures needed for decades to hundreds of years. The SDEIS, however, lacks any discussion of the likely effectiveness of the chosen mitigation measures.	WR023, WR130
4484	the SDEIS lacks any discussion of the significant and irreversible environmental impacts that would occur if the chosen mitigation measures prove to be ineffective.	NEPA09
4490	the SDEIS estimates that closure of the mine would cost as much as \$200 million, with postclosure monitoring and maintenance estimated at \$3.5 million to \$6 million per year. SDIES 3-138. ... The SDEIS provides no meaningful discussion as to how these mitigation measures could possibly be fully funded and remain 100 percent effective for hundreds or even thousands of years after closure of the mine.	FIN01, FIN05
4501	we fail to see how a water collection and treatment system that would need to be operated and/or actively maintained for more than 500 years can meet the DNR Permit-to-Mine regulatory requirements concerning closure, continued oversight and financial assurance... Thus aside from the question of whether this situation may be permitted under applicable law, NEPA requires that the impacts be disclosed in the SDEIS... Because it is reasonably foreseeable that water treatment will fail or end prematurely, and as a result untreated water will be discharged to the Partridge River, the Embarrass River, and their tributary streams, the SDEIS must disclose the quality of that water and the impacts on aquatic life and other resources should it occur.	PER04, WR037, WR202
4502	If the water collection and treatment systems do end prematurely, the impact on the Partridge, Embarrass, and St. Louis River systems would likely be catastrophic to fish, wildlife, and wild rice downstream, and possibly to the Hoyt Lakes water supply. ... If the treatment facility ceases to operate, this water will overflow from the West Pit directly into surface water streams. ... The water quality standard for cobalt is 5.0 ug/L; Figure 5.2.2-37 indicates that at year 200, the predicted P90 level for cobalt in the West Pit is about 30 ug/L, and at the P50 level is about 15 ug/L. The water quality standard for nickel is 52 ug/L at an assumed hardness of 100 mg/L; Figure 5.2-38 indicates that at year 200, the predicted P90 level for nickel in the West Pit is about 300 ug/L, and at the P50 level is close to 200 ug/L. Even at the P10 level, it appears that the pit lake water will not meet the nickel water quality standard by year 200.	WR141
4503	The water quality standard for copper at a hardness level of 100 is 9.3 ug/L; the predicted level in the West Pit water at year 200 ranges between 120 and 580 ug/L. Even at the P10 level, the predicted water quality is twelve times the standard. Perhaps even more troubling, the figure does not show any decline in copper levels over time. This is apparently because a concentration cap was applied in the modeling. We question the use of such a cap, particularly in this situation where the result is that the model gives no indication of the water quality trend over time. Taking the figure as it is presented, however, indicates that the West Pit water may indeed need to be treated to remove copper to eternity.	WR033, WR038

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4504	A series of figures in the Water Modeling Data Package Vol. 2 (PolyMet 2013j) show predicted concentrations of various constituents in seeps at the “toes” of the basin over 200 years; this is water that will be collected and treated under the mine plan, and will discharge to the environment if the collection and treatment system ends. First, note that some of these figures show that the water quality will be better after the addition of the NorthMet project tailings than it would be under “continuation of existing conditions.” However, the continuation of existing conditions apparently does not account for dilution by rainwater, does not reflect the lower volume of discharge from the existing facility, and does not reflect any actions that Cliffs Erie (which is legally responsible for violations stemming from the existing tailings basin) must take to address the situation.	WR049, WR108
4509	Figure 6-34 of the Water Modeling Data Package Vol 2 (PolyMet 2013j) indicates that sulfate levels in the discharge from the north toe of the Tailings Basin will range between approximately 100 and 200 mg/L at year 200. At the northwest and west toes, the predicted range is between 200 and more than 400 mg/L. Id. Figures 6-38 and 6-42. The applicable water quality standard to protect wild rice is 10 mg/L. Much of the St. Louis River system is already heavily degraded in regards to sulfate levels and wild rice stands due to leakage and discharge from the mining industry, so the discharge of this water would add to an already intractable problem.	WR107, WR109, WR156
4515	Figure 6-35 indicates that lead levels at the north toe will range between about 15 and 22 ug/L; the surface water quality standard is 3.2 for a hardness level of 100 mg/L. Once again, the figure shows little potential for a decrease to below the water quality standard over the following centuries.	WR110
4516	As with the copper levels at the mine site, the predicted lead levels in seepage from the Tailings Basin appear to be relatively constant over time. This is also true of sulfate at some locations. PolyMet and the DNR have used 500 years as the minimum amount of time that the discharge is likely to need to be collected and treated. The reality appears to be that the need for treatment will extend far beyond 500 years, that in fact the need for treatment has no foreseeable end.	WR035
4526	The SDEIS analysis of water quality impacts appropriately provides a range of potential impacts based on the uncertainty of several parameters. Unfortunately, there are many uncertainties that are not included in the analysis. Deterministic values (or a narrow range of values that does not reflect reality) are used for many parameters for which the value is in fact unknown. These include but are not limited to hydraulic conductivity and the effectiveness of water collection systems. These uncertainties must be disclosed, and the SDEIS must discuss what they mean in regard to impacts on water quality and quantity.	WR026
4528	The statement that the P90 level presents a “worst case” analysis of water quality, SDEIS 5-77, is simply untrue. The P90 level presents a “worst case” scenario if everything goes exactly as intended: if no mistakes were made in designs, calculations, or modeling inputs, if no mistakes are made in operations, if no larger-than-expected storms occur, etc. Presenting the P90 predictions as the worst that things would possibly be is a disservice to the public and to decision makers, both of whom will have to live with the consequences if anything goes wrong.	WR192
4537	Before permitting this type of mining in the state, the agencies must plainly and openly disclose the legacy of this industry in other parts of the country ... Moreover, the SDEIS also fails to disclose the widespread pollution resulting from past and ongoing iron ore and taconite mining in this same region, and the MPCA’s failure to effectively regulate these sites and enforce environmental laws.	PER06
4541	In several places, the SDEIS promises “adaptive management” to address any changes that become necessary due to errors in the SDEIS predictions. The need for some of these changes would not be known until long after the mine has closed and PolyMet Corporation no longer exists. It seems unlikely that financial assurance will be in place to cover these adaptations.	FIN05

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4542	NEPA specifically requires that “information [be] available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. § 1500.1(b). Because information concerning financial assurance is directly relevant to the reasonably foreseeable significant adverse impacts of the proposed mine, and is essential to a reasoned choice among alternatives, and because the overall cost of obtaining such information is not “exorbitant,” NEPA requires the agencies to include this information in the SDEIS. 40 C.F.R. § 1502.22(a). Moreover, even if the agencies could demonstrate that detailed information concerning financial assurance cannot yet be obtained, the agencies are still required to include in the SDEIS a statement of the relevance of the incomplete or unavailable information to evaluating the impacts of the proposal, a summary of the information that is available, and the agency’s evaluation of the potential impacts “based upon theoretical approaches or research methods generally accepted in the scientific community.” 40 C.F.R. § 1502.22(b).	FIN05, FIN13
4596	According to PolyMet’s reclamation proposal, during years 22 to 31, PolyMet proposes to pump water out of the East Pit backfill for treatment in the WWTF at 1750 gpm. See PolyMet 2013i at 154. This appears to contradict the information in the SDEIS regarding the East Pit. This is a large amount of water to be pumped and treated, and it appears that it could impact saturation of the waste rock in the East Pit backfill. The agencies must more adequately explain PolyMet’s plans for the pumping of water at the East Pit at all phases of the mine project, including reclamation and postclosure. The additional discussion and analysis must address the feasibility and likelihood of success of PolyMet’s proposal, and the impacts of the pumping on the waste rock that would be backfilled in the East Pit.	PD35
4606	the amount of drawdown in the Partridge River is likely to be underestimated due to inaccuracy in the modeling, and drawdown of the upper reaches of the Embarrass River tributaries has not been addressed at all. PolyMet apparently does plan to discharge water directly to the channel of Unnamed Creek to maintain its flow immediately below the tailings basin. However, the fate of this water is uncertain; drawdown of the water table may cause the stream to lose most of the augmented flow to groundwater. The entire upper reach of the creek is currently lined by riparian wetlands; it is unclear whether the proposed augmentation will be sufficient to support the wetlands as well as the creek flow. As with Trimble and Mud Lake Creeks, discussion of the augmentation plan does not disclose the likely impacts to hydrology in the first mile below the tailings basin. Finally, the SDEIS also does not disclose the predicted drawdown at SW-003 on the Partridge River.	WR004, WR086, WR183, WR186, WR187
4612	The SDEIS provides no details as to the flow augmentation regime, or at what point the decision would be made to increase the augmentation. However, the point must be made that a twenty percent reduction in low flow is in many cases not within the range of natural variation. Low flows occur when there is little or no precipitation. While in wetter years a higher water table may contribute more groundwater than in drier years, the assumption that a twenty percent drawdown in the baseflow of a stream is equivalent to a twenty percent variation in annual precipitation is a misuse of statistics.	WR185
4639	The SDEIS also does not provide any scientific reference for the proposition that a twenty percent reduction in the flow of a stream would not result in significant effects on the aquatic community. See 40 C.F.R. § 1502.24 (agencies “shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement”); Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1150 (9th Cir. 1998) (“NEPA requires that the public receive the underlying environmental data from which [an agency] expert derived her opinion”). The conclusion that augmenting flows to within twenty percent of current conditions is sufficient to protect aquatic life is thus unsubstantiated.	WR185

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4663	Based on the information that is available, the groundwater elevation contours shown on Fig. 4.2.2-6 are not believable at this location. First, according to the text the elevations were determined from water level measurements in fifteen wells, as shown on Fig. 4.2.2-13. SDEIS 4-99. Figure 4.2.2-13 indicates that there are no groundwater wells on the entire east side of the tailings basin, including not only the Spring Mine Creek watershed but the Mud Lake Creek watershed as well. The SDEIS provides no information as to the basis of the contour map in this entire area. Furthermore, some of the elevation contours cannot be correct. The highest surface elevation contour between Cell 1E and the Spring Mine Creek watershed shown on Figure 4.2.14-2 appears to be about 1635 feet AMSL (although the figure is admittedly incomplete and difficult-to-read). This line is located directly below the location of the planned outflow swale. The groundwater elevation shown on Figure 4.2.2-6 at the same location is between 1700 and 1725 feet AMSL. Obviously this is wrong. Also, the map shows Spring Mine Lake at an elevation of 1775 ft (assuming that the groundwater elevation is no higher than the lake surface), while reference websites give an elevation of approximately 1676 feet. See, e.g., www.geonames.org.	WR054, WR071, WR079
4667	The SDEIS is even more lacking in information on hydrology at the south end of the tailings basin ... No explanation is given as to why or how the surface features prevent groundwater seepage and movement through this area, and none of the figures provide enough detail to show how much of the area consists of bedrock outcrop or what the likely hydrological regime might be. It appears that no monitoring has been done in this area, see SDEIS Figure 4.2.2-13, and the groundwater elevation contour map is completely lacking in detail. See Figure 4.2.2-6. ... The SDEIS states that "A cutoff berm and trench placed approximately 200 to 250 feet downstream of the seepage face would collect this seepage." However, there is no figure illustrating either the placement or the construction of this berm and trench.	PD13, WR071, WR101, WR117
4671	According to the SDEIS, eighty percent of the Mine Site currently drains to the south, while twenty percent "drains north to the One Hundred Mile Swamp and the Partridge River or northeast to the Partridge River." SDEIS 4-151. ... [Figure 4.2.2-5] does not support an interpretation that water does not flow toward Yelp Creek from the stockpile area. ... Whatever the rate of flow would be, the SDEIS and the modeling apparently assume that all of this flow will be toward the West Pit. The information provided does not support this assumption...It cannot be assumed based on the available information that this drainage will not impact wetlands and Yelp Creek.	WR071, WR088, WR089
4676	We agree with the GLIFWC position and incorporate the "GLIFWC Wetlands Attachment" by reference. This includes (but is not limited to) the points that: Groundwater drawdown is likely to result in impacts on ombrotrophic bogs, and these impacts must be included in the SDEIS.? Hydrogeological studies at the mine site are insufficient to support SDEIS assumptions regarding hydrological connections between groundwater and many of the wetlands.? Use of the Canisteo Pit as an analog must be adjusted to account for the difference in depth of the NorthMet pit, and this assessment must use relevant information from other mine pits.? The amount of acreage likely to be impacted, and the acreage likely to be severely or moderately impacted, are all higher than suggested in the SDEIS.? Significant drawdown of the Partridge River is possible, which would in turn impact riparian wetlands.? PolyMet needs to provide sufficient information to allow assessment of the quantity of wetlands that will be impacted.	WET10
4682	The SDEIS explains the use of MnRAM to assess wetland functions, including a list of factors used in the assessment. However, the wetland discussion does not provide information on which functions provided by the wetlands will be destroyed or degraded by this project. As a result, it is impossible to judge whether the functions that will be lost will be replaced by mitigation. The discussion of mitigation focuses only on the quality and type of wetland, and ignores function. ... [Table 4.3.3-2, SDEIS 4-436] is from the reference document AECOM 2011a, which includes MnRAM documentation only for the Federal Lands outside of the Mine Site itself, which were apparently assessed separately from the Mine Site lands. We were unable to find MnRAM documentation for wetlands within the Mine Site, which of course is where the greatest impact will be.	WET21

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4690	Neither the impacts of mercury deposition in wetlands nor the addition of mercury to groundwater flow through wetlands is assessed in the SDEIS. The SDEIS does not include information on current mercury levels in water in the wetlands that would be impacted, particularly at the mine site, but the information that it does include indicates that wetlands almost certainly already violate the applicable mercury water quality standard of 1.3 ng/L. ... Since the SDEIS assumes that changes in groundwater quality may effect wetland water quality, and since the groundwater will include mercury released from mining features, the only possible conclusion is that the project will add to mercury levels in the wetlands, which already exceed the water quality standard. ... Mercury levels in wetland waters are also likely to increase due to mercury in fugitive dust and Plant emissions.	MERC01, MERC09
4691	The SDEIS must assess the total additional load of mercury to wetlands from all sources (air deposition, groundwater transport, and spillage) and the impact it will have both on the violations of the water quality standard and the mercury level in downstream fish. It should be noted that the 1.3 ng/L standard is set to protect wildlife that feed on fish and other aquatic life, and thus the assessment should not be limited to impacts on humans who eat fish from the downstream lakes.	MERC01, MERC09
4692	In addition to mercury, the Proposed Project would likely result in violations of other water quality standards in wetlands, due to both groundwater contamination and air deposition of sulfur and metals...The SDEIS does not fully describe its groundwater quality predictions in regards to the depth at which the pollution is likely to be found, whether the entire flow path is likely to be affected or whether we can expect a narrower plume of contamination, etc...In the absence of adequate rationale for the assumption that groundwater flowing from the mine features would not enter [minerotrophic] wetlands, it must be assumed that contamination would impact all wetlands that are hydrologically connected to groundwater in each flow path.	WET10, WR010, WR112, WR120, WR151
4693	Neither the SDEIS nor the Wetlands Data Package provides the water quality predictions for those locations, however; that information is found in Attachment J of the Water Modeling Data Package Vol. I (PolyMet 2013i). As explained above, the Class 2B standards apply to wetlands. The following table shows the approximate P90 predictions of groundwater quality at the Dunka Road for several flow paths, as compared to the Class 2B standards. Standards that vary based on hardness are given for a hardness of 100 mg/L. All values are ug/L. [see full comment letter for table, pg 57 of 157]...The values in the table above do not refer to the leachate from the various ources.Rather, they reflect very significant dilution by other groundwater. In fact, it is entirely unclear from the discussion in the SDEIS, the Water Modeling Data Package, and the Wetland Data Package that these values do not actually reflect	WR112, WR173, WR177
4694	We have particular concerns about pollutants (such as copper and nickel) for which predictions are based on concentration caps and adsorption rates. The leachate for these pollutants is expected to be extremely concentrated, and we do not believe that the predictions accurately reflect the potential for releases to groundwater and wetlands. The following table shows leachate levels, which are limited to those that are included in Attachment H of the Water Modeling Data Package Vol. 1 (PolyMet 2013i). Once again, all values shown are approximate P90 predictions in ug/L. Standards that vary based on hardness are given for a hardness of 100 mg/L. [see full comment letter for table, page 58 of 157]. It is clear from this table that the potential for water quality violations in wetlands surrounding the stockpiles and pits is significant. While the values given for the Category 1 Stockpile and the pit water are not as high as those for the temporary sources, some of the constituents will remain many times higher than the standard for more than 200 years, which was the extent of the modeling period.	WR058, WR064, WR112, WR166, WR167, WR177
4696	The PolyMet materials do not include predictions for seepage at the east side of the Tailings Basin, but predictions for water quality at the North, Northwest, West, and South toes indicate approximate water quality, shown in the following table. The values are approximate maximum P90 values, in ug/L. Values for standards that vary by hardness are given for a hardness of 100 mg/L. [see full comment letter for table, page 59 of 157]. See Water Modeling Data Package Vol. 2 (PolyMet 2013j), Attachment F. As is clear from this table, if sufficient water escapes collection the water quality standards will be exceeded in wetlands immediately below the tailings basin. This seems particularly inevitable on the east side, where seepage is likely to affect Spring Mine Creek as well as wetlands.	WET12, WR054, WR064, WR100, WR102, WR120

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4697	The SDEIS completely ignores the potential for degradation of plant and aquatic life due to the reduction of sulfate to sulfide within the wetland environment. Considering that several streams within the Plant Site are on the impaired waters list for Fishes and Macroinvertebrates Bioassessments, PolyMet and the Co-Lead agencies need to investigate the role of sulfate in the degradation of aquatic communities before permitting any additional releases.	AQ11, AQ12
4698	As with the metals, the SDEIS relies on attenuation and dilution in its predictions regarding sulfate levels in the Partridge and Embarrass Rivers. And as with the metals, the SDEIS does not disclose the levels of sulfate that will discharge to wetlands, far upstream of the surface water evaluation points. As with the metals, the SDEIS relies on a faulty model of the mine site and unrealistically optimistic predictions of the effectiveness of water collection to minimize the amount of contaminated water predicted to escape into groundwater and wetlands from the mine features. And finally, as with the metals, the SDEIS does not reveal the amount of sulfate that will enter the wetlands through air deposition.	WR017, WR019, WR020, WR021, WR058, WR089, WR120, WR126, WR127, WR151, WR167
4699	The maximum predicted P90 sulfate levels in the groundwater flow paths at the Dunka Road average between 20 and 60 mg/L. Maximum P90 levels in leachate from mine features is presented in the following table, with approximate values taken from the Water Modeling Data Package Vol. 1, Attachment J (PolyMet 2013i). [see full comment letter for table, page 62 of 157]. Sulfate in the Category 1 leachate is of particular concern, because it continues at this level beyond Year 200. Some unknown amount of this water is likely to discharge into the wetland immediately south of Yelp Creek; Yelp Creek itself is located about 1,000 feet from the foot of the stockpile.	WR060, WR071, WR081, WR115, WR120, WR167, WR173
4700	The wetlands cumulative effects discussion begins by including only the direct impacts of the Proposed Project. SDEIS 6-35. This exclusion of most of the impacts of the project is unexplained and unacceptable. If the rationale is that lost wetlands can be expected to reappear once the pits are filled, this is not acceptable. The impacts of forty years of wetland loss and degradation must be included in the cumulative impacts analysis, including the long-term effects of vegetative and other changes. The cumulative impacts requirement is not limited to permanent wetland loss. The analysis should not include the East Pit wetland or the West Pit in its calculations. These areas will not meet water quality standards, and the West Pit, at least, will be fenced. Water will be pumped from the West Pit in part to limit the amount of water flowing out to wetlands. Referring to the West Pit as “deep water habitat,” SDEIS 6-35, begs the question, habitat for what?	WET18
4701	In addition, the [cumulative wetlands] analysis does not include impacts from Northshore Mining. Northshore Mining estimates that its planned expansion will increase inflow to the Peter Mitchell Pit to 280 percent of its current inflow, Golder Assoc., Type II Virginia Formation Stockpile Plan (May 2, 2013) (Ex. 35). This amount of increase will surely have some impact on wetlands. Furthermore, it plans to completely eliminate 6,000 acres of the Partridge River watershed and discharge all pit water to the Rainy River watershed following closure. Northshore Mining Company, “Ultimate Pit Limit – Permit to Mine – December 2010” (April 12, 2013) (Ex. 36). This will also impact wetlands in the Partridge River watershed.	WET18
4706	In many cases, the conclusion that destruction of wetlands will have significant environmental impacts can be avoided by providing compensatory mitigation that addresses those impacts ... most of the proposed mitigation is located in places where it cannot compensate for lost functions. The restoration of wetlands outside of the St. Louis River watershed cannot compensate for the loss of functions such as flood control, water storage to support river and stream base flows, and filtering of pollutants and particulates within the watershed...the SDEIS must provide an assessment of lost functions; that assessment must consider whether mitigation will occur within a geographic scope that would actually address those losses.	COE02, WET03
4707	The destruction of peat bogs will not only release mercury currently stored in peat, it will reduce the mercury sequestration capacity of the watershed, which is likely to have a continuing impact on mercury levels in rivers and streams, and thus on the level of mercury in fish tissue within the St. Louis River system. The loss of this capacity cannot be compensated for by increasing the capacity for mercury sequestration in another watershed (even if the creation of a peat bog were possible).	MERC20

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4708	the mine site provides habitat for a number of wildlife species that do not range as far south as the proposed [wetland] mitigation sites. Two of these are Canada lynx and moose. Moose in particular need wetlands for thermoregulation in summer, and with global warming that need is increasing. Northeastern Minnesota is increasingly becoming the last viable area within the Midwest for northern species as temperatures grow warmer, and many other species could be affected by the loss of habitat in this area. The restoration or rehabilitation of wetlands south of St. Louis County will not compensate for this loss.	WI01, WI02
4709	Another function that will be lost at the site is the loss of biodiversity, particularly in regards to black spruce/Jack pine forest, which is considered imperiled/vulnerable in Minnesota. This ecosystem is disappearing due to global warming, and any attempt to create this ecosystem is unlikely to be successful; that would be particularly true south of St. Louis County [at the wetland mitigation sites].	VEG02, VEG03
4710	the wetland fill would destroy one of the few known Minnesota populations of floating marsh marigold, which is state-listed as endangered and has been found only in St. Louis County. Restoring wetlands in the Aitkin and Hinckley [mitigation site] areas will not replace habitat for this rare plant.	VEG01, VEG03
4711	In addition to the direct destruction of 916 acres of wetlands, the SDEIS acknowledges that the proposed project would destroy or degrade thousands of additional acres. Neither the permit application nor the SDEIS provides a mitigation plan for this significant loss of wetlands. Instead, the SDEIS includes a promise to monitor, with no details regarding parameters, conditions that would trigger a need for additional mitigation, or description of what that additional mitigation would consist of. Without this information, the public (and decision makers) have to assume that an undisclosed amount of wetlands will simply be lost.	COE02, WET01, WET02
4714	What the SDEIS fails to explain is why these impacts [lynx habitat and wildlife corridors] would not violate the Endangered Species Act. ... Even though the agencies have been analyzing this proposed mine for a number of years, the SDEIS states that ESA Section 7 consultation between the action agencies and the U.S. Fish and Wildlife Service is still “ongoing and will continue throughout the EIS process.” SDEIS 5-364. Pursuant to NEPA, the agencies should have waited to release the SDEIS for public comment until after ESA consultation was completed, to allow the concerned public to know the position of the expert wildlife agency regarding the impacts of the proposed mine on Canada lynx during the public comment period. See 40 C.F.R. §§ 1502.25(a), 1502.9(a). ... The proposed mine would likely result in the “take” of Canada lynx, through the destruction of their critical habitat, vehicle and train collisions, and the continued loss and fragmentation of the few remaining wildlife corridors in the area. ... there will undoubtedly be cumulative impacts to lynx and lynx habitat as a result of widespread mining, mineral exploration, and other activities in this region	WI01, WI02, WI03, WI11
4715	The SDEIS’s analysis of the potential impacts of the mine proposal on moose and moose habitat, however, is almost nonexistent. In devoting only one sentence to the decline of the state’s moose population, SDEIS 4-210, the SDEIS vastly understates the dramatic decrease in moose populations across Northern Minnesota. ... The SDEIS also fails to recognize the critical importance of northeastern Minnesota for the remaining moose population in the state. ... In failing to properly recognize the moose’s dramatic decrease in population, the SDEIS’ analysis of the potential environmental consequences to moose is also deficient... The agencies summarily conclude, however, that even though moose would be adversely affected through habitat loss and fragmentation, an adverse affect would be “not likely at the population level.” Id. NEPA prohibits agencies from making such sweeping general statements without providing supporting data or analysis. Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1150 (9th Cir. 1998); 40 C.F.R. § 1502.24.	WI01, WI02

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4716	Moose are likely to be affected by the proposed NorthMet project in a number of ways that the SDEIS fails to sufficiently address or disclose. First, vehicle and train collisions have been recognized for decades as an important source of moose mortality. ... [second] the presence of areas that provide a mosaic of habitat types within close proximity to each other may be an important component of moose survival in Minnesota. Although the Mine Site has apparently not been assessed on this basis, it appears from descriptions to provide such a mosaic of habitat types. Third, moose survival may also be affected by the expenditure of energy when startled by noise or to avoid areas affected by human activity. ... Finally, the same impacts on wildlife corridors that will affect lynx will affect moose, in much the same way.	WI01, WI02, WI03, WI05
4719	the SDEIS analysis of the potential impacts to moose is even more deficient and problematic in the cumulative impacts analysis, where moose are not even mentioned.	WI01
4730	The SDEIS fails, however, to provide a detailed analysis of the environmental consequences to birds and wildlife that would result from the creation of a permanent, polluted pit lake at the Mine Site, and creation of a permanent tailings pond at the Plant Site.	WI01, WI04
4731	The SDEIS's failure to address the proposed mine's compliance with the MBTA [Migratory Bird Treaty Act], despite the proposed creation of a permanent 321 acre pit lake and the acknowledgment that migratory bird species may be adversely affected by this newly created "open water" habitat, violates NEPA and the MBTA.	WI04, WI11
4734	The SDEIS tells us that noise will impact wildlife, and that "Songbird populations have been shown to decrease with noise levels as low as 35dB." SDEIS 5-370. However, the SDEIS says nothing about the magnitude of the impacts. ... [Figure 5.2.8-3] shows a remarkably large area within which songbirds could be affected. It indicates a circular area that appears to be about 20 miles in diameter. It thus appears that the project would affect more than 300 square miles of songbird habitat; if this is the case, the SDEIS needs to say so.	N04
4735	The SDEIS needs to provide an estimate of the acreage of wildlife habitat that will be degraded due to human noise and activity. The effect of noise, traffic, and other human activity in addition to the direct loss of habitat and the blockage of wildlife corridors needs to be addressed to give a complete picture of the impacts of this project on wildlife.	N04
4741	In its cumulative impacts analysis for wildlife, the SDEIS provides very general statements concerning some risk and impacts, which fall far short of the detailed analysis required by NEPA. ... Absent a justification as to why more detailed and quantifiable information cannot be provided, these very general statements are insufficient and fail to comply with NEPA.	WI08
4750	As for the wolf, which until recently was designated as threatened with extinction under the ESA and remains a state species of concern, the SDEIS cumulative impacts analysis devotes only one sentence to potential impacts ... Clearly NEPA requires a more detailed analysis, or the cumulative impacts requirement is rendered meaningless.	WI01
4757	The SDEIS cumulative impacts analysis for wildlife also entirely fails to consider or address impacts of the widespread past, present, and reasonably foreseeable mineral exploration across the region. In May, 2012, the Forest Service completed an EIS for 29 federal hardrock mineral prospecting permits, which acknowledged impacts to wildlife including up to 163 miles of new roads, increased traffic volume, and the increased noise from drilling. While the mineral prospecting EIS was limited to an identified number of projects where the federal government owns the mineral rights, there are many additional mineral exploration projects within and near the Superior National Forest where the mineral rights are owned by private interests or the State. Additionally, the BLM is currently considering potential lease renewals for Twin Metals, which would result in additional exploration and other mining activities. And the Forest Service is in the process of preparing an Environmental Assessment of the impacts of the Twin Metals hydrogeological study. All of these projects will have impacts on wildlife, each of which may not be significant standing alone, but which are very likely to be significant in the aggregate. None of these projects, however, are considered in the SDEIS cumulative impacts analysis.	WI08

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4758	The SDEIS also fails to consider the cumulative impacts of the continued destruction of wetlands in this region, and the resulting impacts to wildlife. This is especially important due to the changes anticipated in the region from global climate change.	WI02
4759	What the SDEIS fails to provide, however, is any analysis as to what this anticipated continued decline in the few remaining travel corridors actually means for wildlife in the region. This is especially problematic for wide ranging species such as wolves, rapidly declining species such as moose, and already endangered species such as the Canada lynx.	WI03
4760	The SDEIS states that a “Take Permit” may be required for impacts to state-listed endangered and threatened species, and that mitigation may be required. As with indirect impacts to wetlands, the lack of a mitigation plan makes it impossible to judge what the impacts on these species will be. NEPA and MEPA both require that if mitigation is relied on to eliminate or lessen impacts, that mitigation and its likely efficacy must be described in the EIS.	VEG01
4761	The cumulative impacts assessment must identify the appropriate scope of review for each issue, and proceed accordingly. ... The discussion of cumulative impacts to state-listed plant species needs to consider threats to the species throughout its range within the state. Without this information, it is impossible to know the full significance of the destruction of populations due to this project. For example, the project is predicted to impact eight percent of the known populations of floating marsh marigold in the state, i.e., it will impact one of only twelve populations. Table 5.2.4.3, SDEIS 5-346. To understand the significance of the loss or degradation of this population, we have to know the status of the other populations.	VEG08
4762	the SDEIS cumulative impacts analysis for a number of resources – including but not limited to water quality, wetlands, and wildlife - is inadequate and fails to comply with NEPA or MEPA. The SDEIS provides only general, mostly non-quantified analysis, which falls far short of the detail required.	CU14
4763	the SDEIS makes a number of fundamental mistakes in its cumulative impacts analysis, including failing to consider certain past, ongoing, and reasonably foreseeable actions. Table 6.2-1 lists the actions that the agencies considered. SDEIS, p. 6-7. Notably absent are the hundreds of exploratory drilling projects taking place in the same region on federal, state, and private lands.	CU02
4764	The SDEIS also fails to include consideration of the major expansion proposed at United Taconite. ... As stated in our comments, the construction and utilization of tailings basin 3 at United Taconite would impact an additional 1,300 acres of wetlands and adjacent waterways in the St. Louis River watershed.	CU02
4765	The SDEIS further fails to address PolyMet’s plans for future expansion and/or for the Plant Site to be utilized for future copper-nickel mining projects in this region. Because the plant will operate only at approximately one-third capacity for the proposed NorthMet project, its use for other projects is likely. ... Of course the additional use of this Plant Site for expansions and other mining proposals would significantly increase the amount of waste that would be deposited into the tailings basin. This would also greatly increase the amount of vehicle and rail traffic and other disturbances in the immediate project area, impacting numerous resources.	CU02
4766	The SDEIS also fails to set forth the proper geographic scope for the cumulative impacts analysis, especially concerning the potential impacts to water, wetlands, and aquatics, where the agencies refuse to extend the scope of analysis to the entire St. Louis River watershed. There can be no dispute that past and ongoing mining and related activities have resulted in major, significant impacts to the St. Louis River watershed, all the way downstream to the estuary which is formally designated as an “Area of Concern.”	CU01

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4767	This is an error that the SDEIS makes again and again, for virtually every type of impact. From the air deposition of mercury to area lakes, to ambient air pollution and regional haze, to the loss of critical habitat, to impacts on state-listed endangered plants, the SDEIS compares the level of impact from this project to the overall impact and deems the impacts from this project insignificant and thus not of concern, even in regards to the cumulative problem. The SDEIS must reveal the level of cumulative impact that all sources together have on impacted resources, and acknowledge that the Proposed Project would be one of many sources that together cause the impacts.	CU15
4812	The [regional haze] analysis must include all Class I areas that could be affected by the cumulative emissions of this and other projects. That would include at least Isle Royale. The analysis makes the further mistake of limiting the foreseeable projects that will have impacts on the Class I areas. The analysis must include all foreseeable projects that are likely to impact visibility in the Class I areas, regardless of where they are located. ... Furthermore, the SDEIS does not include all foreseeable sources even within the study area. The list of included project on SDEIS p. 6-81 does not include mining lease exploration activity. Drilling and other exploration activity can be a significant contributor to haze, especially in winter.	AIR08
4813	The entire analysis of this issue is built on the faulty premise that if reductions are made from some sources, additions will be acceptable from other sources. The point of the haze regulations is to reduce pollutants that affect visibility and most importantly to make reasonable progress on improving visibility in all affected Class I areas such that natural visibility conditions are attained by 2064. The amount of reductions from other facilities is not the relevant number by which to measure the impacts of the Proposed Project. Rather, the impacts must be measured against the visibility targets for all affected Class I areas (including Isle Royale). If that target is unlikely to be met, the pollution from this project must be considered a contributor to a significant cumulative impact.	AIR08
4861	The analysis attempts to describe the current situation with the Regional Haze State Implementation Plan (SIP). SDEIS 6-78. It fails to note, however, that the plan has been challenged in court due to its lack of stringency, and may well be invalidated. Furthermore, the analysis does not tell us what the SIP, the EPA Federal Implementation Plan, the Cross-State Air Pollution Rule, and the litigation involving them mean for this project and its impacts on visibility. ... the goals of the challenged SIP do not meet the requirement to meet natural conditions by 2064 and therefore there is no question that additional reductions will be necessary. It is inconceivable that the agencies could possibly find that the increase from the Proposed Project may be permitted under this scenario.	AIR08
4862	Remarkably, the entire cumulative impacts assessment never describes the actual impacts of haze on Class 1 area visibility, at current levels and at the levels we can expect based on the assessment of emissions levels. One can read the entire assessment and have no idea how much visibility has already been impacted in the national parks and wilderness areas, how much better or worse it will be with the projected reductions and increases, or how close that will come to pristine conditions. PolyMet and the agencies must model and discuss actual visibility impacts. Although emissions are a component of this analysis, emissions reductions do not result in a straight-line visibility impact, and cannot be used as a substitute for impacts on visibility itself.	AIR08
4863	we disagree that “PM10 emissions are not considered to be a concern for visibility impairment in the BWCAW or Voyageurs National Park,” SDEIS 6-83 (and we reiterate that other potentially affected Class I areas must be included in the analysis). It is alarming to learn that considering only the projects that the agencies deem foreseeable, and including reductions, a net increase in PM10 emissions is predicted; the SDEIS needs to provide more information on how this could affect haze and what it means in regard to regulatory requirements.	AIR08
4864	Paragraph 5 of the summary on SDEIS 6-86 is poorly worded, and needs to be clarified. “Based on current projections including the NorthMet Project Proposed Action, the reductions addressed in this section are not projected to be enough to meet the 2018 goal.” That much is clear. Does “The reductions would be enough to meet the 2012 goal” mean that they would be enough even if NorthMet was operating? If not, would the goal be met with the NorthMet project? And at what point in time would the goal be met? The year 2012 has already passed; has the goal in fact been met? If we have not yet met the 2012 goal, it is unclear how this project could be permitted.	AIR08

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4865	The NorthMet Proposed Project would emit 700 tons per year of particulate matter-10, SDEIS Table 5.2.7-5, which is quite a substantial amount of a pollutant with already existing impacts on human health. Yet the SDEIS completely fails to tell us about the health impacts of breathing PM10, or the degree to which the Proposed Project would add to existing levels.	AIR07
4866	Table 5.2.7-10 and Table 5.2.7-11, both at SDEIS 5-410, require explanation. The tables appear to include the same information for different purposes. However, although the SO2 and NO2 values are the same, the values for PM are very significantly reduced in Table 5.2.7-10, with no explanation. If this is due to the evaluation location (the property line for Table 5.2.7-10 and an undisclosed location for Table 5.2.7-10), the SDEIS needs to discuss the impacts of this level of particulate matter for workers at the site.	AIR07
4867	The SDEIS includes many pages of discussion about regulatory requirements and why the project will not violate them, but it gives no information whatsoever about the impacts of emissions of criteria pollutants from the Proposed Project on human health. While EIS requirements include a discussion of whether regulatory requirements will be met, that is not the primary point. The point is to describe environmental impacts, whether they are otherwise regulated or not. Regulatory standards are very often compromises that allow some amount of impact in order to accommodate industry. They are generally not cut-off points below which no impacts will occur.	AIR07
4868	While the figures do illustrate a shocking level of exceedances due to taconite facilities, it nonetheless also appears that the NorthMet project is likely to have some impact from the emission of NO2, as ambient levels approach the regulatory standard. Of particular concern is that the analysis completely omits discussion of particulate matter, apparently because it is not modeled to exceed the standard at any receptor. It does, however, come close, at 34 ug/m3 compared to the standard of 35 ug/m3. Particulate matter is likely to have an impact at this level, and it would be instructive to see a modeled receptor map showing where this impact would occur.	AIR07
4869	More generally, the entire cumulative impacts analysis for criteria pollutants is improperly limited to the grid around the site, rather than considering incremental additions to more regional problems. Most of the state of Minnesota has just experienced a health advisory warning from MPCA due to high levels of particulate matter. MPCA, "Eastern two-thirds of Minnesota placed under air pollution health alert" (March 7, 2014) (Ex. 52) accessed at <a href="http://www.pca.state.mn.us">http://www.pca.state.mn.us</a> on March 8, 2014. We reiterate that it is alarming to learn that a net cumulative increase in PM10 emissions is predicted, even with planned reductions from any facilities. The SDEIS must disclose contributions from the Proposed Project to the projected increase, and what that means for human health both locally and in downwind areas.	AIR09
4870	One of the most problematic issues in regard to this and other new mining projects in Northern Minnesota is the impact on global climate change. The SDEIS reveals that this project would represent 0.44 percent of Minnesota's greenhouse gas emissions. SDEIS 5-430. This is an enormous amount for one facility, especially a facility that intends to employ only about 0.012 percent of Minnesota workers.	AIR01
4871	The SDEIS states that Minnesota has established a greenhouse gas emissions reduction target of 15 percent by 2015. ... It is absolutely unconscionable for the State of Minnesota to consider permitting the level of increase in emissions at issue here, in light of our commitments to global welfare.	AIR01

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4872	Although the SDEIS appears to include the loss of terrestrial carbon sequestration in its assessment of greenhouse gas emissions, the number used for this source of greenhouse gases is puzzling. A 2008 report to the DNR states, "A single acre of peatland contains, on average, 750 metric tons of C. Total emission of the carbon contained in just 1,000 acres of peatland would increase Minnesota's 2005 CO2 emissions by almost 2%." Anderson, Jim, et al., "The Potential for Terrestrial Carbon Sequestration in Minnesota" (February 2008) (Ex. 14). The total amount of terrestrial carbon loss reported in Table 5.2.7-9 of the SDEIS is 199,963. This would amount to a loss of 266 acres of peatland if no other losses were counted. However, the SDEIS states that "Most of the wetland vegetation present at the Mine site (69 percent) is indicative of acid peatland systems." It appears that significantly more than 266 acres of peatland will be destroyed. We thus question whether the protocols used to estimate greenhouse gas emissions underestimate impacts from the destruction of peatlands. Furthermore, the SDEIS does not discuss the important role these lands play in long term sequestration of carbon. The value of the lands for that purpose will be permanently lost; we cannot recreate this resource.	WET13
4873	Friends of the Boundary Waters Wilderness commented extensively on state policy in regards to peatlands in its scoping comments on the USFS land exchange ... These state recommendations and policies and the inconsistency and impact of permitting the Proposed Project must be discussed in the SDEIS.	NEPA08
4877	The inventory of greenhouse gas emissions does not appear to include increased emissions from transportation to and from the mine and plant sites. This site is in a relatively remote location, and will necessitate a great deal of transportation of both materials and workers. SDEIS Table 3.2-13 lists shipments of various materials; the greenhouse gas emission impacts should be included for these shipments from their place of origin, not just from Duluth. In addition, the SDEIS assumes that workers will commute long distances for jobs at the site. This assumption also needs to be included in the assessment of greenhouse gas emissions.	AIR01
4878	In addition, some of the processing of these metals will be done in other locations. Earlier estimates of air emissions have been reduced due to this factor, in essence exporting the air pollution impacts to another location. In regards to global pollutants like greenhouse gases and mercury, these impacts must be included in the EIS for the project. The cumulative impacts of these emissions when added to other global sources of pollution will add to the impacts in Northeastern Minnesota just as they would if they were emitted locally. They will also add to the load affecting the entire planet regardless of the emission location.	AIR07
4879	At the very least, PolyMet, the Co-Lead Agencies, and the SDEIS need to consider an alternative energy source. All of the electric power for this project would come from burning coal.	AIR01
4880	In addition, according to the SDEIS, several alternatives that would decrease greenhouse gas emissions (albeit by minor amounts) were considered and rejected by PolyMet. SDEIS 5-433. At least one of the alternatives was rejected on the basis of cost alone; the reference document indicates that an electric tram system for haul trucks would not be considered unless it would be less expensive than diesel power, which emits more greenhouse gases. See Barr 2012s., Att. A. The Co-Lead Agencies need to consider these alternatives themselves, and include them in the SDEIS if they would provide environmental benefits. Under NEPA, the consideration of alternatives is not driven by what the project proposer is willing to do. The Co-Lead Agencies must examine the project objectively and independently to determine whether the applicant could do more to reduce environmental impacts, and must deny the necessary authorizations if they find that it could.	AIR01
4881	For almost every resource that will be impacted by the Proposed Project, the SDEIS fails to account for the impacts of climate change. ... Providing a note of this while not stating what the actual effect of the changing climate will be, see SDEIS 5-430, is not sufficient to cover every issue in the SDEIS. For some of the resources at risk, it is at least predictable that the differences will be significant and that they will move in a particular direction...For these and other impacts with a foreseeable climate change component, the SDEIS must include this factor in its discussion of impacts.	AIR01

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4882	Both PolyMet and earlier investigators have found amphibole material in the area PolyMet seeks to mine. This amphibole can include fibers that produce health effects. Such fibers are also generated when the material is ground and processed as PolyMet plans to do. SDEIS Section 5.2.7.5 and its supporting documents try to explain this away, saying the fibers are not true asbestos and wouldn't cause health harms. In fact, the history of taconite mining in Minnesota and mining in other places proves that fibers deemed "not asbestos" by some experts can sicken and kill humans in large numbers. That is just what could happen if PolyMet is allowed to mine in the Duluth Complex.	HU05
4900	The Expert Statement of Steven J. Ring ... explains that as part of the Minnesota Environmental Quality Board's Regional Copper-Nickel Study, Mr Stevenson found amphibole fibers in the Duluth Complex – including from the Partridge River Intrusion, which PolyMet seeks to mine. ... Stevenson's conclusion was that the Duluth Complex has 1/3 the fibers as the does the Biwabik. Id. at 5. Stevenson also notes the similarity of the formation of amphibole minerals in the Biwabik and Duluth Complex: both can have the same type of sharp, pointed crystals. ... The information and opinions from Mr. Ring's statement must be disclosed and addressed in the Final EIS. An EIS must disclose and respond to "any responsible opposing view."	AIR03
4902	the University of Minnesota School of Public Health and the Natural Resources Research Institute (NRRI) presented findings from their ongoing Taconite Workers Health Study (Ex. 58). They found that in Iron Range Communities mesothelioma was present nearly 200% higher than expected. Ex. 58 at 5. Lung cancer was higher than expected by 20% and heart disease by 11%. Id. All three of these harms were elevated in each of four geologic zones of the Iron Range. Id. Furthermore, the study found that the iron mining worker population of northeastern Minnesota has elevated rates of death from all causes combined, all cancers combined, lung cancer, mesothelioma, and heart disease. If mining in the Duluth Complex might yield a third of this harvest of death and illness, the PolyMet proposal should be rejected.	HU05
4906	The [Barr Engineering, Fibers Data Related to the Processing of NorthMet Deposit Ore (June 2007) (Barr 2007m).] ... Report argues the fibers that would be generated by mining the Duluth Complex would not be asbestiform, and thus would not harmful based on a review of fibers identified in its sampling and Stevenson's earlier work regarding the Duluth Complex. ... the assertion in the PolyMet Fibers Report that EPA requires a 20:1 aspect ratio for a fiber to be deemed asbestos is flatly incorrect. EPA has specifically rejected an identical mining industry claim regarding El Dorado Hills, CA. The 20:1 aspect ratio used in the PolyMet Fibers Report, via the Wylie fibrosity index, should not be used as a determinant of the potential for health effects from a given fiber. In addition, the results from Libby and the Peter Mitchell Pit – where fibers that arguably fail a strict test of what constitutes asbestos still prove deadly – amply demonstrate that such narrow definitions are irrelevant to whether public health will be at risk.	HU05
4913	The companion argument in the PolyMet Fibers Report (as it was at Libby) is that the fibers are cleavage fragments, which are asserted to be not harmful. In fact, there is no basis for this assertion. ... EPA, ATSDR, NIOSH, the American Thoracic Society and leading epidemiologists reject the claim that cleavage fragments cannot cause health effects. Research data also support the notion that small fibers can cause health effects. The Cook PMP Analysis (cited above) found that fibers splitting into smaller pieces can increase the potential for health risk. ... Clearly if surface area is the key determinant of health effects – not aspect ratio alone or number of particles or surface chemistry – then elongated particles of varying size and aspect ratios can be harmful. As important, if surface area is the key determinant, whether a particle arrived at its shape by cleavage or some other mechanism is irrelevant.	AIR03

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4917	A report prepared for the Minnesota Department of Natural Resources and cited in the SDEIS provides support for the notion that short fibers can play an important role in creating disease. Environmental Resources Management, Amphibole Mineral Fiber Toxicological Literature Review 11-12 (March 2009) (ERM2009) [hereinafter MDNR Literature Review]. Citing three studies, the MDNR Literature Review states, “[o]ther studies that examined human tissues have found that the majority of asbestos fibers in mesothelial tissues were shorter than 5 μm in length, thus indicating the ability of shorter fibers to reach the tumor site, remain there, and as a consequence thereby implicating their role in the development of disease.” Id. (citations omitted). The MDNR Literature Review also discusses a series of studies that found short fibers contributed to health effects.	HU05
4918	The PolyMet Fibers Report also cites old preliminary research from 2003 regarding an absence of health effects experienced by Minnesota taconite workers to suggest that no health harms should result from mining the Duluth Complex. PolyMet 2007m at 61. This science is outdated; as presented above, more recent data show elevated mesothelioma, lung cancer and heart disease and overall death rates for taconite workers. In fact, the health effects experienced by those workers rings an alarm bell for the prospect of mining in the Duluth Complex. The PolyMet Fibers Report also asserts that the low levels of fibers Barr Engineering found in samples taken from the Duluth Complex suggest no health harm is likely. Barr 2007m at 65. In fact, even very low levels of mineral fibers can cause substantial health effects.	HU05
4919	The SDEIS asserts that, “[t]he vast majority of potential emissions of MN-fibers for the NorthMet Project Proposed Action would occur from the ore crushing operations at the Plant Site, with minor potential emissions from the Tailings Basin and the Mine Site.” SDEIS 5-441. The authority cited for this proposition is Barr Engineering, Emission Control Technology Review for NorthMet Project Mine Site (September 2007) (Barr2007o) [hereinafter Emission Control Report]. In fact, the Emission Control Report contains no such information. Instead, the report discusses various types of control measures. However, for many of the emission sources no mechanical control is proposed. ... Thus, there is no basis in the record to believe mine workers won’t be exposed to dust at the mine site, if the mine becomes active.	AIR03
4920	It is very troubling that PolyMet used the R.J Lee Group to analyze its samples for asbestos, and that the Co-Lead Agencies accepted this analysis for the SDEIS. This consulting firm consistently represents industry and, as noted above, EPA has demonstrated at Libby and El Dorado Hills how the firm uses inappropriate measures to analyze for asbestos. Further, the similarity between arguments found in the PolyMet Fibers Report and arguments used by the R.J. Lee Group – and rejected by EPA – at other mines undermines the credibility of the entire SDEIS fibers analysis.	AIR03
4921	The unusual preparation of the PolyMet flotation samples also raises credibility concerns. PolyMet’s contractor ground the samples destined for the electron microscope with a mortar and pestle to an unspecified degree – something that neither of the cited test methods calls for. Ex. 52 at 13-14. As Mr. Ring points out, this extra grinding prevents the results from being compared with Stevenson’s similar analysis. Id. Did the grinding remove fibers that PolyMet otherwise would have found? Was that the goal of the exercise? When important public health matters are involved, decision makers should be able to rely on information untainted by such concerns.	AIR03
4922	The discussion of fibers above indicates the need for an assessment of the potential impacts of the Proposed Project on the health of people who would work there. Leaving the protection of workers to OSHA regulation without providing them and the public with an explanation of the risks is a disservice to the entire community. In addition to fibers, it is apparent from the assessment of impacts on ambient air that working at the mine would pose health risks to workers. However, the assessment does not provide any information on air quality within the property line, so it is impossible to judge what the level of those impacts would be. The SDEIS should provide information about the ambient levels of pollutants for workers at various places within the Mine and Plant Sites, along with information about the health impacts of pollutants at those levels. A review of the health effects of particulate matter from the Journal of Toxicology is included as Exhibit 51.	HU04

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4925	The numbers drawn from the Economic Impacts Assessment (EIA) do not take account of known limitations of the IMPLAN model, thus inflating the likely economic effects. Some of these limitations are noted in the EIA report itself. BBER 2012 at 3-4. In addition, we are submitting a review of an industry-wide report that was written by the same team at the Labovitz School of Economics. Hjerpe, Evan, and Spencer Phillips, "A Review of 'The economic impact of ferrous and non-ferrous mining on the State of Minnesota and the Arrowhead Region,'" (Dec. 30, 2013) (Ex. 75).	SO04
4926	Despite the caveats included in the EIA, numbers from the report are stated in the SDEIS as if they are neither uncertain, nor inflated. ... In particular, the addition of induced employment, output, and value added to the numbers is misleading. Without a discussion of other forms of economic development that might be expected if the mine were not to be build, the entire practice of adding induced effects will virtually always make the impacts appear greater than they actually will be. ... To put it another way, if these jobs were not induced by the NorthMet project, at least some portion of them would be induced by other economic activity. The counting of induced effects assumes that if the NorthMet project did not happen, the local residents who would work there would either leave the area or remain unemployed. While this might be true for some, it is certainly not true for all. Even if the "Proposed Action could reduce unemployment in the study area by nearly one percent," SDEIS 5-501, it is highly unlikely that the unemployment rate would actually be one percent higher without the mine than it would be if the mine were operating.	SO04
4927	Furthermore, economic researchers and theorists note that dependence on resource extraction can inhibit other economic development. ... The failure of the SDEIS to recognize that other economic development is more likely to occur if the NorthMet project does not proceed makes the project appear to be more important than it actually is to the local economy.	SO04
4929	The SDEIS also does not provide adequate information regarding the number that it presents. ... The SDEIS needs to provide specifics about these assumptions. For example, "profits" are included in the definition of "value added." The analysis does not tell us if this includes PolyMet shareholder profits. If it does, almost all of these profits will be leaving St. Louis County. It would be very helpful to all parties, whether they support this project or oppose it, to be able to compare the economic benefits that would remain in the county to those that would not. Similarly, "output" is defined to include "minerals and processed mineral products," virtually all of which would leave the county.	SO04
4931	The discussion of taxes should include a point of comparison, such as total Minnesota tax revenues for 2011. See SDEIS 5-503. It should also include information on the percentage of taxes paid by mining companies that go back to the mining industry, and the degree to which the project is supported by public services. With no assessment of the cost of this facility to the state in terms of such things as regulatory oversight, emergency services, state-funded research, public education about the dangers of eating fish, and cost savings stemming from the LTV bankruptcy, the tax amounts do not indicate the actual benefit to the public of the Proposed Project. Finally, the way in which these numbers are presented can strongly influence the impression they make. For example, estimated taxes for the project according to the EIA are \$69 million annually, and according to PolyMet are \$37 to \$80 million annually. SDEIS 5-503. ... The Executive Summary takes it one step further: "Federal, state and local taxes would total estimated \$80 million annually." The length of the SDEIS ensures that virtually no one will read beyond the Executive Summary or the initial material at the beginning of each section, and very few people will learn that taxes may be half of what is stated in the summaries. The SDEIS needs to do a better job of presenting an unbiased view of the project.	SO04
4932	Mirroring the way in which environmental impacts are presented, the economic assessment emphasizes positive effects and downplays negative ones. For example, the additional jobs are presented as a clear benefit, "reduc[ing] unemployment in the study area by nearly one percent," SDEIS 5-501. However, after closure, those jobs "account for less than one percent of the overall study area workforce. . . [and a]ny increase in study area unemployment during and after closure . . . would be minimal." Similarly, unemployment during a "bust" could be offset by "the diverse economy of the study area." SDEIS 5-496. A change in industrial productivity is not seen as a situation in which more local resources will be extracted with less local benefit, or as contributing to the ongoing decline in mining employment, but as "lessen[ing] the effect of booms and busts in mining communities." SDEIS 5-497.	SO04

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4935	The SDEIS notes that there may be economic costs of environmental degradation, but then conflates that factor with non-market values, which is an entirely different issue. We agree that a monetary value cannot be placed on clean water, clean air, and the continued presence of moose and wild rice in the state of Minnesota. However, these values are in addition to monetary costs of environmental degradation, such as the health care and lost productivity costs of air pollution, the cost of replacing subsistence fishing and hunting with other sources of protein, and the lost value of wild rice. While we recognize that NEPA regulations do not require a quantitative cost/benefit analysis, if economic benefits are quantified as they have been here, economic costs should also be quantified. Not providing comparable quantitative information on costs results in an inevitable bias and inflates the value of the project.	SO04
4936	[The SDEIS] goes on to suggest that workers will commute as far as 80 miles to work on construction. This is not a positive statement; in fact, it is one more reason why the permitting of the project would not be good public policy. Encouraging employment that has people driving this far (and emitting the corresponding amount of greenhouse gases and other pollutants) is exactly the opposite of what we need to be doing as a matter of public policy. State, federal, and local agencies should all be promoting employment situations that eliminate commuting, rather than promoting it as good for the economy.	AIR11
4937	It is unclear what is meant by the statement that “To account for some of these concerns, commodity prices in the IMPLAN model are generally conservative, compared to price trends.” The IMPLAN model explicitly does not address production slowdowns or shutdowns. If it did, the appropriate comparison would not be to average prices, but to recent low prices, because slowdowns or shutdowns would come when prices fall below the average. The average price has not impact on slowdowns and shutdowns; if it did, this would not be a cyclical industry. The low prices for all of the metals are lower than the modeled price. SDEIS 5-496.	SO04
4938	The attitude in the SDEIS toward mine closure is truly remarkable. We have to guess that whoever wrote this section has never lived in a mining community when the mine shut down. The level of enthusiasm for this project in Hoyt Lakes is due in part to the difficulties the community has had since LTV closed. The cavalier assumption that people would simply move away when the mine closes defies belief, especially in light of the rosy picture painted of employing local people who are currently unemployed. The NorthMet mine would simply set the community up for another round of instability, kicking the need to build a sustainable economy down the road to the next generation along with the permanently polluted mine site. ... Table 4.2.10-9 reveals that the entire Iron Range and every community in St. Louis County has a higher unemployment rate than either Lake or Cook Counties, which have no mines. While incomes are not as high in some non-mining communities, it is the lack of stability in employment that creates the larger problem.	SO02
4968	The stated purpose of the Proposed Project includes helping to “meet domestic and global demand by sale of these products to domestic and world markets.” The Co-Lead agencies need to step back and consider whether these metals are actually needed, and whether increasing the supply of metals is actually in the public interest. The assumption that meeting consumer demand is positive and necessary, and that environmental degradation is a by-product that we have to live with, is threatening the viability of the planet. The most positive public policy step that could be taken in this instance is to allow the price of copper and other metals to rise so that they would be recycled more and used less profligately.	NEPA06
4969	The alternatives analysis in the SDEIS violates NEPA and MEPA by (1) defining the purpose and need too narrowly in order to eliminate consideration of other reasonable alternatives; (2) failing to accurately describe the no action alternative; and (3) failing to include the consideration and comparison of reasonable alternatives, including the underground mine alternative and the west pit backfill alternative. ... An agency may not define a project’s purpose “so unreasonably narrow” as to make the EIS “a foreordained formality.” City of Bridgeton v. Slater, 212 F.3d 448, 458 (8th Cir. 2000). ... The Corps and DNR cannot simply adopt the applicant’s stated purpose for a proposed action. ... In doing so, the Corps and DNR have also failed to comply with their NEPA and MEPA obligations in accepting PolyMet’s claim that there are no reasonable alternatives to PolyMet’s proposed open-pit mine plan.	NEPA01

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4973	The alternative analysis also violates the Clean Water Act by failing to clearly demonstrate that the proposed action is the least environmentally damaging practicable alternative... The SDEIS includes a “no action” alternative, but its description and analysis of the no action alternative fails to meet NEPA and MEPA requirements. Pursuant to NEPA guidance provided by the Council on Environmental Quality, where the choice of “no action” for a proposed project would result in predictable actions by others, this consequence of the “no action” alternative should be included in the EIS. 46 Fed. Reg. 18026 (March 23, 1981). For PolyMet, the SDEIS briefly discloses that under the no action alternative, Cliffs Erie would be required to complete closure and reclamation activities as specified under state permits and the Cliffs Erie Consent Decree. SDEIS 3-142. However, the SDEIS fails to provide a description of the environmental outcomes once Cliffs Erie comes into full compliance with the Clean Water Act and state water quality standards.	ALT20
4974	Although the SDEIS does state that the “continuation of existing conditions” scenario used in modeling is not the same as the “no action” alternative, the no action alternative was not modeled, so the “continuation of existing conditions” is the only thing available with which to compare predicted impacts of the proposed alternative. This cannot help but confuse readers, and in any event does not comply with NEPA and MEPA requirements.	ALT14
4975	For PolyMet’s NorthMet proposal, the agencies fail to include in the SDEIS any alternatives other than the mandatory no action alternative, in violation of NEPA and MEPA. Moreover, for two alternatives that it chose not to consider – an underground mine and the west pit backfill alternatives – the agencies fail to provide an adequate explanation, again in violation of NEPA and MEPA.	ALT03, ALT06, ALT15
4976	The agencies acknowledge that when compared to the proposed open-pit mine alternative, an underground mine alternative at this site would offer significant environmental benefits ... The agencies further acknowledge that an underground mine is technically feasible at this site. Thus, the only reason provided for not including full consideration of an underground mine as a reasonable alternative within the SDEIS is economic feasibility. ... The SDEIS does not sufficiently disclose what information was considered in determining that an underground mine at this site would not be economically feasible. The assessment does not disclose what costs were included, or how the timing of those costs affected the analysis.	ALT01
4978	What the SDEIS fails to provide but is needed for informed public comment and decisionmaking is a meaningful and understandable side-by-side comparison of the anticipated expenses and profits of an underground mine compared to an open-pit mine. This comparison must address and disclose all relevant factors, including the need for a land exchange, wetland mitigation, and long-term water treatment, maintenance, mitigation and monitoring.	ALT01, ALT06
4981	The SDEIS fails to provide sufficient explanation for not including the alternative of utilizing the West Pit for disposal of mining and processing waste. ... One primary reason provided by the agencies as to why the West Pit Backfill alternative was not considered is “additional mineral resources in the West Pit ... would be effectively lost if the pit was used for waste rock and/or tailings disposal.” SDEIS 3-151.	ALT03
4982	If PolyMet intends to mine additional minerals from the West Pit, this must be analyzed now in the SDEIS for this mine proposal. Clearly additional mining in the same pit would be characterized under NEPA as connected, cumulative, and similar actions, all of which must be analyzed together in a single EIS. 40 C.F.R. § 1508.25. Similarly, if additional mining in the West Pit is foreseeable enough to preclude consideration of a reasonable alternative that would reduce environmental impacts, it is also reasonably foreseeable for the purpose of assessing the potential impacts of the current proposed action. See 40 C.F.R. § 1508.7 (defining “cumulative impacts” to include “reasonably foreseeable future actions”); 40 C.F.R. § 1508.8(b) (defining “indirect effects” to include effects that are later in time “but are still reasonably foreseeable”).	ALT03

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4985	Another explanation for rejecting this alternative is that the West Pit would not be available for backfilling until the end of mining, and the Category 1 Stockpile would therefore still be required for the 20 year life of the proposed mine. SDEIS 3-151. This ignores the environmental mitigation that would be provided for the many hundreds of years following closure of the mine, when pollution from the Category 1 Stockpile is anticipated to continue. Indeed, the SDEIS acknowledges that the backfilling of the Category 1 Stockpile into the West Pit following closure of the mine would allow for reclamation of the affected surface footprint, including the potential to recreate wetlands areas and restore function. Id. Moreover, removal of the Category 1 Stockpile “would improve visual aesthetics.” SDEIS 3-152.	ALT03
4988	Based on the cursory assessment of this potential alternative provided by the agencies, it is apparent that the West Pit Backfill alternative meets the purpose and need for the proposed action, is technically feasible, and is economically feasible. ... The agencies rejected this alternative based on environmental impacts that have not been modeled or quantified, and thus cannot be compared with other alternatives.	ALT03, ALT06
4991	The SDEIS still fails to demonstrate that there are no practicable alternatives to the proposed action that would result in less adverse impacts to wetlands and the aquatic ecosystem. ... A discussion of the presumption of practicable alternatives, and an analysis as to whether the proposed action is the least environmentally damaging practicable alternative, is absent from the SDEIS. The SDEIS thus fails to demonstrate that there are no practicable alternatives to any of the wetland fills that are proposed for permitting, and fails to demonstrate the absence of other less environmentally damaging alternatives, as required by the Section 404(b) Guidelines and the Clean Water Act. 40 C.F.R. § 230.10(a); 33 C.F.R. § 320.4(a)(2)(ii); Minn. R. 7050.0186(4).	ALT06, ALT13, ALT20
4998	The SDEIS states that the purpose of the Land Exchange is to “consolidate the surface and mineral ownership of the lands involved at the Mine Site.” SDEIS 1-11. ... At the outset, it is important to dispense with the notion that there is some “fundamental conflict” that must be resolved. No such conflict exists. If “the mineral rights that were reserved do not include the right to surface mine as proposed by PolyMet,” then there is no conflict with not allowing that kind of mining to occur. ... Other versions of the Secretary of Agriculture’s rules and regulations for insertion into deeds conveying land to the United States support the fact that PolyMet’s deed did not reserve the right to strip mine. ... The 1937 rules and regulations demonstrate that the Forest Service was aware of and intended to allow “stripping” in that version of the Secretary of Agriculture’s rules and regulations. The absence of similar language in PolyMet’s deed indicates that the parties to that deed did not intend for strip mining to occur on these acquired Federal lands. ... Rather than needlessly giving these lands to PolyMet so that it can destroy them through open pit surface mining, the Forest Service should follow the example that led to the Belville Mining case and protect these lands. ... Beyond the case law on this matter, the Weeks Act itself contains the assumption that strip mining will not be permitted on Weeks Act lands. ... As a special provision is included to allow purchase of lands with reservations when the reservation will not interfere with the use of the encumbered lands, it must be that the purchase of land with reservations that will interfere with the use of the encumbered lands is not authorized. In other words, if the deed allowed mining to interfere with the use of the land for timber and watershed protection, it would not have been accepted in the first place. The actual situation is that PolyMet is asserting a property right that it does not have, and the Forest Service is rolling over. Deeming the situation a “fundamental conflict” that must be resolved simply hides the fact that the Forest Service is letting a private corporation dictate what is done with public land when that corporation has no right to do so. Because there is no “fundamental conflict” that needs to be resolved, the Forest Service should withdraw the Land Exchange Proposed Action and continue managing the Federal lands for national forest purposes.	LAN02, LAN04
5037	The Land Exchange Proposed Action would establish a terrible precedent for the future of the Superior National Forest and other forests that mining companies would like to strip mine. It is unclear whether the Forest Service has ever before considered exchanging forest service lands with a corporation so that the corporation could strip mine those lands, particularly when the deed does not grant that right. According to documents obtained through a Freedom of Information Act (FOIA) request, it appears that actions such as the Land Exchange Proposed Action are at the least uncommon.	LAN02

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5038	As stated in the SDEIS Executive Summary, the purpose of the Proposed Action is to “resolve the conflict between the surface estate owned by the United States and the private mineral estate.” SDEIS at ES-10. However, virtually all of the land that is proposed for exchange contains the same conflict. The Forest Service proposes to resolve a split estate by exchanging land for other land that also has a split estate. ... Unless the current deeds contain clauses that protect the surface (and it appears that few of them do), the titles that the Forest Service receives will be inferior to the title that it holds now. It is extremely difficult to perceive how this will meet the need of resolving a conflict in the title to lands.	LAN04
5039	The Forest Service has no reason of its own to give up the land it is considering transferring to PolyMet, and no reason of its own to prefer the land that PolyMet would transfer to the Forest Service. The entire driver for this exchange is to give a private corporation the means to make as large a profit as possible. This is not a legitimate purpose for an exchange of national forest property, and the Forest Service should thus withdraw the Proposed Action.	LAN01
5043	Before the Forest Service may approve the Land Exchange Proposed Action, it must first make a “determination [] that the public interest will be well served.” 36 C.F.R. § 254.3(b). ... 16 U.S.C. § 521e permits the sale, exchange, or interchange of small parcels (40 acres or less) and road rights-of-way that are “substantially surrounded by lands not owned by the United States and which are no longer needed by the United States.” Such authority is used to convey much smaller parcels of Federal land than the one at issue here.	LAN01
5047	The SDEIS states that seven “impact indicators” regarding land use were used to identify anticipated outcomes of the Land Exchange Proposed Action. SDEIS 5-577. ... It is unclear why these seven factors were chosen or how they fit into the regulatory scheme described above. As a whole, the list seems to address ease of management of federal lands and resources. If that is the intention, however, it seems to have been lost in the SDEIS discussion, which does not include all of the regulatory factors listed above. In fact, we did not find an explicit discussion of the regulatory factors in the SDEIS. The SDEIS also does not specify how the seven impact indicators are weighted, or how they will be used. It is unclear whether the Forest Service intended them simply as criteria that the parcels offered by PolyMet had to meet before the exchange would be considered, or whether they are being weighed in the public interest balance. If they are being weighed in the public interest balance, it is unclear how the regulatory factors will be factored in.	LU01
5048	The factors do not make sense, however, as a list by which to compare the federal and non-federal lands. Using it in this way elevates a few factors of the public interest review above all others. Furthermore, it inappropriately elevates minor considerations regarding ease of management. For instance, the net change in boundary management that would result from the proposed land exchange is a reduction of 33.2 miles. SDEIS 5-580. This represents a net reduction of just 0.003%, and is statistically insignificant.	LU01
5050	Furthermore, the [federal] lands were most likely placed in the General Forest – Longer Rotation MA for a reason. It would be helpful to know what that reason is, and whether it will be served by a land exchange.	LU01
5062	The second factor the Forest Service must consider in its public interest determination is the needs of state and local residents and their economies. 36 C.F.R. § 254.3(b)(1). ...the SDEIS provides no support for the insinuation that these metals are needed.	LAN01
5066	In its consideration of the local community, the Forest Service must give special consideration to the needs of indigenous people in this area, particularly in light of the Federal government’s duties as a trustee. ... The impacts of mercury and sulfate pollution on both the health and the livelihood of native people in Northeastern Minnesota is unconscionable, and the Forest Service should not add to it by facilitating an open pit mine on what is currently Forest Service property.	CR01
5069	The SDEIS further states that there should be little to no employment impacts following closure of the proposed mine “given the relatively small number of jobs” that would be created by NorthMet Project Proposed Action. If any increase in unemployment after the mine closes would be minimal, any increase in employment from the mine would be minimal as well.	SO04

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5074	the Proposed Project would present long-term threats to local water quality should the Forest Service approve the proposed land exchange. Those threats will remain for centuries, and could have an extreme negative impact on local residents and their economy.	WR195
5080	Should the Forest Service approve the proposed land exchange, the NorthMet Project would destroy at least 912.5 acres of very high-quality wetlands, and would indirectly impact thousands more. These wetlands have been recognized by EPA as aquatic resources of national importance. ... The compensatory mitigation plan has not yet been finalized, and is rife with problems. No compensatory mitigation has been identified for indirect impacts, and it is unclear whether such mitigation will be required. If this project is approved as it is currently proposed, the St. Louis River watershed will lose an enormous amount of wetlands. It defies belief that the Forest Service could believe that the minimal public benefit of this project could outweigh the destruction of this amount and quality of wetlands, particularly in conjunction with all of the other environmental impacts of the project. ... Many of the factors identified in the EPA’s 2010 comment letter remain unaddressed. The Forest Service has an independent duty to assess this wetland loss, pursuant to both NEPA and its public interest review. It cannot simply assume that mitigation for any impacts will be addressed by other agencies, when the mitigation plan and the amount of mitigation are far from clear. Rather than addressing impacts on floodplains and wetlands in the SDEIS, the Forest Service assumes that the impacts will be mitigated. SDEIS 5-595; 5-598. ... Without the [wetland] mitigation and monitoring plans, it is impossible to judge what the impacts of the Proposed Project will be. This does not satisfy the Forest Service’s present obligation to determine whether the “public interest will be well served” should the Forest Service approve the proposed land exchange, nor does it satisfy the obligation under NEPA to independently review the impacts of a proposed project.	LAN01, WET01, WET02, WET03, WET04, WET14, WET15, WET19
5085	As the Land Exchange section of the SDEIS focuses on acreage of wetlands in the federal estate, we again emphasize that transferring those parcels to the Forest Service would not increase wetland acreage or mitigate in any way for the wetland losses at the Mine Site. Furthermore, the wetlands at the Mine Site are far more contiguous and of higher overall quality than those scattered across the various parcels of the non-federal land.	WET14
5087	The Co-Lead Agencies must disclose the percentage of the non-Federal lands that contain coniferous bogs just as they did for the Federal lands. Coniferous bogs make up the majority of wetlands on the federal lands. By combining coniferous bogs and coniferous swamps on the non-federal parcels, the SDEIS obscures how many acres of coniferous bogs are potentially being lost to the federal estate due to the NorthMet Project and Land Exchange Proposed Actions.	WET17
5088	In addition to the public interest review, a land exchange that facilitates wetland destruction does not comply with the Forest Plan. The Forest Plan directs that “wetland impacts will be avoided whenever possible.” USFS, Land and Resource Management Plan, Superior National Forest (USFS 2004b) at 2-15. It is clearly “possible” to avoid wetland impacts in this case since PolyMet’s deed does not allow it to open-pit mine, and the Forest Service is not obligated to go forward with the land exchange. Land exchanges are “discretionary and voluntary real estate transaction[s] between the Federal government and a non-Federal party[.]” Forest Service Handbook 5409.13 § 31. Since the impacts to these wetlands are entirely avoidable, the Forest Service has an obligation to protect them rather than facilitating their destruction.	LAN04, WET16
5091	There is no question that the proposed project would destroy more than two square miles of federally-designated critical Canada lynx habitat, and despite wetland mitigation and a proposed land exchange, those two square miles will be a net loss in critical habitat. This loss would violate the Endangered Species Act, and this alone precludes the Forest Service from accepting the land exchange.	WI02, WI11
5092	We also note that the land exchange would result in a very significant loss of General Forest-Longer Rotation management area (MA). This is an area of High Biodiversity Importance; acreage of this quality will also be lost. It thus appears that the forest will lose biodiversity, and the value of biodiversity to wildlife.	VEG02, VEG03, WI02

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5093	Impacts to cultural resources from the Proposed Project would be extensive, and are important enough that the Forest Service should follow the wishes of the Tribes regarding impacts. The Forest Service must weigh this factor heavily in its public interest review, and must not facilitate a project that would further destroy resources that are so important to Tribes in the region.	CR05, CR06
5094	Regarding scenic integrity objectives (SIOs), the SDEIS states that it used SIO definitions in the Forest Plan for evaluating the Federal lands but used a 1995 Forest Service publication to evaluate the non-Federal lands. SDEIS 4-349. The discrepancy is not explained. The SDEIS needs to provide sufficient information to determine whether this difference could lead to inaccurate comparisons.	EDIT01
5095	Regarding impacts to wilderness, a Class I Visibility Analysis using Method 2 indicated that “visibility impacts greater than 5 to 10 percent could occur at some point within the BWCAW on a small number of days each year.” SDEIS 5-415. The cumulative impacts of air pollution on visibility within the BWCAW are already substantial, and the State admits that its plan will not meet visibility goals. It is thus not in the public interest to facilitate the air emissions that will result from the Proposed Project. Impacts on Class I visibility are discussed above.	AIR08
5098	It is somewhat ironic that the Forest Service seems to be using the excuse of a lack of accessibility to justify disposing of land. Inaccessible land is of great value to wildlife, to the preservation of biodiversity, and for the maintenance of a clean and livable environment. These are all values the Forest Service should foster. We know of no other entity that is more appropriate as the owner and manager of inaccessible forest and wetlands than the U.S. Forest Service.	LU04
5101	Furthermore, the SDEIS admits that the acquisition of the widely scattered non-Federal parcels would have a “small” impact on recreation. We would argue that the effect would be imperceptible. On the other hand, the destruction of thousands of acres for an open pit mine, increased truck traffic, increased noise, air, and water pollution, among other impacts, could have a much larger impact on recreation. Overall, the impact on recreation is more likely to be negative than positive.	LU06
5104	In terms of policy, the Forest Service should primarily consolidate split estates in situations where the Forest Service consolidates its own holdings. The Forest Service should not be in the business of exchanging land that was acquired for national forest purposes in order to consolidate the surface and subsurface to benefit a private corporation. That may well serve PolyMet’s interests, but it does not well serve the public interest. Moreover, the fact that the Forest Service would receive split estate lands in return demonstrates that the objective of consolidating estates would not be served. We have not been able to identify another land exchange situation in which the Forest Service made an administrative decision to accept split-estate land in an action whose stated purpose was to consolidate land holdings.	LAN04
5108	The SDEIS does not adequately describe the nature of the mineral estates underlying the Federal and non-Federal parcels proposed in the exchange. This is an important consideration because of the difference in the ability of the Forest Service to protect the surface estate depending on whether the mineral rights are “reserved” or “outstanding.” This information should have been disclosed in the SDEIS, and must be disclosed before a decision is made regarding the land exchange. ... it appears that most of the privately owned minerals underlying the Federal lands are reserved mineral rights while the mineral rights underlying the non-Federal lands include both reserved and outstanding mineral rights. Furthermore, it is unclear from many of the descriptions of the nonfederal tracts whether mineral rights are outstanding or reserved. Clear information must be disclosed in the EIS and factored into the public interest determination and the equal value determination.	LAN04
5110	First, the Forest Service must disclose how PolyMet plans to satisfy its mortgage [for Tract 1] at closing. In some situations, the Forest Service allows the reservation of timber rights in land exchanges as part of the financial arrangements. Under no circumstances should that happen in this case; any such factor of the proposed transaction must be considered in the EIS process.	LAN03

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5111	Second, the SDEIS must disclose whether the mineral rights underlying Tract 1 are reserved or outstanding. According to an earlier document in this process, 4,591 of 4,650 acres have private outstanding mineral ownership. This is simply not acceptable for the largest non-Federal parcel proposed in the exchange, regardless of whether the Forest Service believes there is a “low potential” for mineral extraction.	LAN04
5112	Furthermore, the SDEIS acknowledges the “potential for aggregate production from the northeastern corner of the tract [Tract 1] along the Pike River.” More information is needed on what this means in regards to the outstanding mineral ownership. For instance, how much of the tract does “the northeastern corner” encompass? It is unclear from either the description of the tract or from state law whether aggregate would go with the surface estate or the mineral estate. ... Thus it appears that on some portion of the Hay Lake lands, the Forest Service may not have the authority to prevent the mineral owner from destroying the surface for aggregate production. Again, it is an unacceptable exchange if this is the case.	LAN04
5113	Here we have a parcel [Tract 2] that apparently includes outstanding mineral rights that explicitly allows the owner to remove the surface. This cannot be considered a stronger title than the title to the Federal lands. ... All of these factors weigh against a finding that exchange for this land well serves the public interest.	LAN04
5114	If Lake County approved or entered into an agreement or contract with PolyMet (or with third parties with the knowledge that the purpose was to further the PolyMet project) to assist PolyMet's NorthMet project in the environmental review process, this agreement or contract violated state law restricting government action or approval prior to completion of the environmental review process. Minnesota law requires that state agencies (including county governments) not take final action on a project prior to the completion of environmental review. Minn. Stat. § 116D.04(2b) and Minn. R. 4410.3100. Moreover, the law requires that an EIS be prepared early in the process and that the information and analysis developed in the EIS be used by the government to inform permitting or approval decisions related to the project or pieces of the project. Minn. Stat. § 116D.04(2a).	LAN09
5116	In considering the Land Exchange Proposed Action, the USFS must address whether the Lake County Lands were acquired in violation of Minnesota law and if so, remove them from consideration in the proposed land exchange.	LAN09
5121	[Tract 3] is subject to deed provisions that allow destruction of the surface by the mineral estate holder. The disclosure that “the title commitment review indicated that this represents a poor condition of title” is interesting, as the title condition is now considered “moderate.” SDEIS Table 5.3.1-3. This statement provides no citation, and we were unable to find a “title commitment review” document in the SDEIS references. The Forest Service must disclose this document and explain why the title ratings have been upgraded. We suspect that a similar situation applies to other tracts; if so, this information must also be disclosed.	LAN04
5123	Regarding Wolf Lands 2, the SDEIS states that there is moderate potential for aggregate mining but that “the parcel’s wetland areas and limited access may restrict this opportunity (Barr 2011c).” SDEIS 4-401 (emphasis added). We reiterate our observations for the Hay Lake lands on this point, and add that the right to “remove the surface” could very well be interpreted by a court to mean that the aggregate resources belong to the mineral estate.	LAN04
5125	There is not enough information to provide informed comments at this time regarding the Tract 4 and the public interest review. It is frustrating to find important pieces of information withheld until the Final EIS. The Forest Service must have all of the pertinent information in front of it before it makes a decision, and informed input from the public is an important component of that decision making process.	LAN03
5131	the Forest Service must disclose how PolyMet plans to satisfy this [Tract 5] mortgage in favor of Iron Range Resources at closing. Under no circumstances should the Forest Service allow PolyMet to reserve timber rights through the exchange as part of its plan to satisfy the mortgage. ... If the Forest Service is unwilling to rely on and defend its rights under similar provisions in the title to the Federal lands, of what value are the provisions of this deed?	LAN04

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5133	According to the SDEIS, the construction phase is expected to cause “relatively few” employees to “permanently relocate to the study area, due to the short-term and transient nature of mine construction.” SDEIS 5-504. During the operations phase, there would be “adequate housing to accommodate the influx of workers” due to the “small number of new residents[.]” SDEIS 5-505. Therefore, the proposed land exchange is not needed for an expansion of communities.	SO06
5135	The proposed land exchange does not promote multiple-use values. Rather, it promotes the single value of mining. The lands that would be acquired will not change from their current use as forested property, and none of them seem to be under any threat of conversion to other uses. Furthermore, the consideration of multiple uses has to be informed by the state or the forest as a whole. The Federal land is very valuable for wetland, wildlife, and water quality purposes.	LAN01
5136	Most disturbing is the fact that these Federal lands were acquired pursuant to the Weeks Act for national forest purposes, including watershed protection, and this project will inevitably result in significant degradation of streams and watersheds. ... The Land Exchange Proposed Action would remove that protection at the time when the river needs it the most. In fact, this entire situation calls the purposes of the Weeks Act into question. What does it mean to protect watersheds and forest production if the lands are disposed of as soon as they are threatened?	LAN02
5144	We disagree that the Federal land meets this [G-LA-3] criteria. This is a large, solid block of property with only two small inholdings. It is adjacent to other Forest Service lands on two boundaries, and the exchange of this property would actually increase fragmentation of other adjacent national forest land in the south west corner. ... If it were not for the PolyMet proposal, the Forest Service would not dream of calling this land “not valuable for National Forest System purposes.” The land was identified as appropriate for an RNA site, and has been recognized by everyone involved as a very high quality, important ecosystem and wetland area.	LAN04
5156	The SDEIS applies the criteria of G-LA-2 to some of the lands that would be acquired. While the non-federal lands may meet the criteria, the difficulty is that they do not meet the criteria as well as does the land that is being given up.	LAN04
5157	While the project would temporarily contribute to the local economy, experience and history indicates that this will not amount to “economic growth” over the long term. Moreover, there is no evidence that the proposed mine would contribute to national defense. In fact, the SDEIS suggests that the minerals from the mine will be exported. SDEIS 1-11. Far from implementing D-MN-2, the Land Exchange Proposed Action would violate it, as this management objective directs the Forest Service not to promote mining, but to ensure that it is conducted in an environmentally sound manner.	LAN04
5158	D-AQ-2 states: New and modified industrial facilities do not degrade Forest resources or uses. Id. As explained above in these comments, the Proposed Project would result in conditions that do not meet these goals. Facilitating the project’s air pollution by conducting a land exchange therefore does not comply with this aspect of the Forest Plan.	LAN04
5159	Finally, we note that the Forest Plan objective for Jack pine/black spruce forest is to restore it to historic levels, which involves a significant increase in acreage. Forest Plan 2-61. The Proposed Project would destroy 698 acres of this ecosystem, which would not be replaced by the non-Federal lands.	VEG02, VEG03
5165	The Forest Service must provide its assessment of the [land exchange] properties at issue here, so the public can determine whether these provisions [of the Federal Land Policy and Management Act] have been met. According to Forest Service regulation, “the findings and the supporting rationale [for a land exchange] shall be documented and made part of the administrative record.” 36 C.F.R. § 254.3(b)(3). The appraisal is an absolutely essential “supporting rationale” for the proposed land exchange; the exchange could not go forward without documentation as to value in the record, and cannot go forward if the exchange is not equal. The Forest Service must provide this information with sufficient time for the public to review it before making a decision.	LAN03

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5167	The Co-Lead Agencies must “rigorously explore and objectively evaluate all reasonable alternatives.” Id. at § 1502.14(a). The Co-Lead Agencies must also “include reasonable alternatives not within the jurisdiction of the lead agency.” Id. at § 1502.14(c). The Forest Service considered just two alternatives to the Land Exchange Proposed Action. The first, the “no action” alternative, is required by 40 C.F.R. § 1502.14(d). The second, Alternative B, “was derived from the Mine Site Exchange Only Alternative” developed during scoping and “would convey fewer acres of federal land for fewer acres of non-federal land.” SDEIS 3-166. ... This does not satisfy the Forest Service’s obligation to “rigorously explore and objectively evaluate all reasonable alternatives,” including “reasonable alternatives not within the jurisdiction of the lead agency.” The Forest Service must consider additional alternatives that have either been eliminated from further consideration or have not been considered at all.	ALT14, ALT23
5168	The SDEIS provides very little information about this suggested alternative [full exchange with restrictions], other than to state that it “is not substantially different from Alternative B ... The SDEIS does not provide a delineation of the One Hundred Mile Swamp, particularly not one with an overlay of the two Land Exchange alternatives. However, very little of the swamp is located in the additional land that is included in the Proposed Action as opposed to Alternative B. See SDEIS Figure 3.3-2.	ALT14, ALT23
5169	The SDEIS provides very little information about this suggested alternative [full exchange with restrictions]...The Forest Service could perhaps think more creatively about restrictions and requirements that could be placed on mining to ameliorate some of the impacts. ... As the holder of property rights that PolyMet must obtain in order to build a surface mine, the Forest Service has a significant amount of leverage that it could use to reduce the environmental impacts of this project.	ALT23
5170	One of the most disturbing things about the Land Exchange Proposed Action is that the lines have been drawn so that the Forest Service no longer owns riparian land along that portion of the Partridge River that is most likely to be affected by the proposed mine. The eastern “Mine Site” boundary does not extend to the river, but the land exchange proposal was structured to remove that stretch of the river from federal control. Land was also added to the Mine Site boundary south of the railroad track to the same effect – removing riparian land from federal control. See Figure 3.3-2. It is difficult to imagine that this was not deliberate, and we suspect that the reason is that the Forest Service did not want the headache of administering a polluted, degraded river. The SDEIS needs to include information about how the boundaries were drawn and why, and an explanation of the rationale for giving up these riparian lands. ... Putting the riparian lands in the mine owner’s hands is not likely to result in stewardship to prevent or address these impacts, and in fact the sketchy monitoring plan included in the SDEIS does not include monitoring of this stretch of the river. The difference in acreage between the Proposed Action and a Partridge River Alternative is not large, but it could make a significant difference to the river. The Forest Service should consider an alternative that leaves Partridge River riparian lands in federal ownership.	LAN06
5172	The Forest Service must consider an alternative that seeks appropriations from the Land and Water Conservation Fund (LWCF) to acquire the mineral rights underlying the Federal lands in the Land Exchange Proposed Action. This is the one alternative that would actually meet the purported purpose of this project, but was never considered. ... The Forest Service is authorized to acquire “interests in land or waters” with monies from the Land and Water Conservation Fund. 16 U.S.C. § 4601-9(a)(1).	ALT23
5174	Minn. Stat. § 116D.04(6). Under this statutory requirement, the DNR must deny the permits required for this project if the environmental consequences outweigh the benefits. ... Thus even if all other legal requirements are met, the three Co-Lead agencies must still consider whether harm to the environment outweighs the benefits of the project.	PER35
5176	Minnesotans are profoundly uncomfortable with the idea of creating a situation where contaminated water will need to be treated for centuries, with no predictable end date. Any benefits of the mine would accrue during a twenty-year period, with the detriments extending more than five hundred years into the future. ... The agencies have no basis to believe that any financial instrument, including cash, would remain viable for hundreds of years. They have not named or described an instrument that has ever maintained its value over more than five hundred years.	FIN01, FIN08

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5177	This project would significantly increase greenhouse gas emissions. This factor alone should be the end of any consideration of permitting it.	AIR01
5178	Both mercury and sulfate levels will increase in the area wetlands, and this is where the greatest potential for harm exists. Furthermore, the increased load of mercury to the Embarrass River is strictly prohibited under the Clean Water Act.	PER10, PER11
5179	The probability of a spill (not an accident, but an accident that results in a release to the environment) is calculated as about 29%. This is deemed to be a “low” probability. SDEIS 5-537. ... Thus we have a greater than fifty percent chance of a spill of hazardous material just in the area between Duluth and the NorthMet site. ... Given the enormous impacts of many of these accidents, this risk is unacceptable.	HAZ06
5180	The local desire for a number of jobs that is insignificant in terms of the overall economy should not be given more consideration than either the long-term detriment to the economy or the many resources that would be destroyed or otherwise impacted by the project.	SO01
5464	Fifth, the SDEIS does not even mention the potential for contributions to waterquality impacts in the Partridge and Embarrass Rivers and tributary streams from air deposition.	AIR04, AIR05
5481	Finally, the SDEIS must disclose the predicted quality of surface water created by the Proposed Project. Water in the West Pit and the Tailings Basin is predicted to have elevated levels of many constituents. See Water Monitoring Data Package Vol. 1 and 2 (PolyMet 2013i and 2013j). Whether or not surface water quality standards apply to this water, the water has the potential to adversely impact wildlife, particularly birds. The predicted water quality thus must be considered and disclosed in the SDEIS.	WR107, WR141
5852	Agency has stated that water quality standards must be met at the “end of pipe,” before mixing with surface water. PolyMet 2013i at 7. This is the appropriate point for compliance for groundwater discharges as well, as the impact at the point of discharge is the same. If contaminants traveling through groundwater contribute to pollution of surface water, EPA and federal courts require a NPDES permit for the discharge. The EPA has stated that “the Agency interprets the Clean Water Act to apply to discharges of pollutants from a point source via ground water that has a direct hydrologic connection to surface water.” 66 Fed. Reg. 2960, 3015, Jan. 12, 2001.	PER05, PER09
5854	Regarding sulfur, in the context of Class I areas... We understand that this is essentially a screening standard for Class I areas, with no legal effect at the Mine Site. However, it also indicates a level at which an increase in sulfur deposition can be considered not to be a problem for an ecosystem. In other words, while this level of deposition may not be relevant to permitting, it is relevant to environmental review. If vegetation, soils, and water could be impacted at a particular level of deposition in a National Park, they could be impacted by the same level in other high quality ecosystems.	AIR09
5855	The SDEIS does not say what the sulfur deposition level will be at any location outside of Class I areas. In fact, it discusses only the increase in metals, and tells us nothing about sulfur.	AIR07
5856	Currently we have no information on whether occasional exceedances or elevated levels may be due to atmospheric deposition, although as explained below, we do know that storm events result in elevated concentrations of mercury in Northern Minnesota streams. In any event, the available information does not indicate that deposition of metals – or sulfur -- can be dismissed as insignificant for the Partridge and Embarrass Rivers.	AIR05, WR151

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5857	The SDEIS also provides no reference or explanation for its apparent position that “a general lack of definitive understanding of mercury dynamics” prevents any prediction of increased loading to the Partridge River through releases to groundwater...The SDEIS needs to provide an explanation as to why such an analysis is not possible at this site. Furthermore, if the analysis truly is impossible, the SDEIS should err on the side of caution and estimate a load based on the humidity cell test leachate, rather than dismissing this mercury source altogether. The conclusion that “mercury released from waste rock and ore at the Mine Site is not expected to be a constituent of concern in groundwater seepage,” SDEIS 5-202, is unsupported.	MERC04, MERC12, MERC16, MERC20
5858	The modeled length of time before untreated discharge would meet water quality standards is highly relevant information that must be revealed in the SDEIS. The fact that for some constituents the model indicates that water quality standards may never be met without treatment is absolutely critical to a reasoned decision, and to a determination of whether this project will reasonably be able to comply with other legal requirements. The actual quality of the water that will be released if treatment ends prematurely is just as critical, as is a discussion of what that water quality would mean for aquatic species, wildlife, wild rice, and human consumption. In the words of the CEQ regulations, this information is “essential to a reasoned choice among alternatives,” and it is thus incumbent on the agencies to provide it in the SDEIS.	WR036, WR038
5859	The SDEIS needs to take a “hard look” at each of the mitigation measures that is relied on to reduce impacts, provide an objective assessment of the likely effectiveness of each mitigation measure, and provide a range of potential impacts that corresponds with the range of potential effectiveness. These assessments must be based on actual, real-world experience with the mitigation measures as used at other mines, rather than on the theoretical possibility that a measure could be 90 to 100 percent effective. If the measures have not been used enough to allow a real-world assessment of their effectiveness, the SDEIS must say so, and provide an assessment that includes the range of potential outcomes.	PD05
5860	These reports have been extensively peer-reviewed and presented at major conferences, including: U.S. EPA’s Hardrock 2006 Conference in Tucson, Arizona; Society for Mining, Metallurgy, and Exploration’s 2006 Annual Meeting in St. Louis; and the Mine Design, Operations and Closure Conference in Fairmont Hot Springs, Montana, also in 2006. These reports and their findings and conclusions must be fully and objectively disclosed and considered within the EIS for the PolyMet mine... Clearly there is a significant risk that the SDEIS assumptions that all mitigation measures would operate as planned, that monitoring and “adaptive management” would take care of any problems, and that environmental standards would be enforced will prove untrue, just as they have proven untrue in other parts of the country (regarding sulfide ore mining) and in Minnesota (regarding mining in general). The SDEIS must include an objective assessment of the likelihood of success of mitigation measures, and that assessment must take account of this relevant information.	FIN01, WR023, WR130
5861	Regardless of EPA’s comments, the SDEIS’ analysis and disclosure of the relevant issues involving financial assurance remains woefully inadequate. The critical importance of financial assurance for this proposed project – as recognized in EPA’s earlier comments on the Draft EIS – has been repeatedly raised at the SDEIS public hearings, in the media, and even in a state legislative hearing that sought information beyond the very general discussion provided in the SDEIS. Moreover, the little information that is provided in the SDEIS demonstrates the compelling need for detailed financial assurance information, as it discloses that mechanical water treatment may be needed for at least 500 years, that initial closure costs will be as high as \$200 million, and that annual monitoring and maintenance costs are estimated at \$3.5 to \$6 million. SDEIS 3-138.	FIN01, FIN05, FIN13
5863	Furthermore, if the reduction in baseflow is measured by an average or mean measurement over the course of several years, it can be expected to fall at the median in regards to precipitation. This would mean that a twenty percent reduction from that median represents a forty percent variation in precipitation. Finally, a permanent drop in baseflow of twenty percent is not equivalent to a baseflow that drops by twenty percent in drought years. NEPA requires agencies to consider means to mitigate adverse environmental impacts. 40 C.F.R. § 1502.16(h); see also 40 C.F.R. § 1502.14(f); 40 C.F.R. § 1505.2(c). Without more information on the flow augmentation plan, it is impossible to tell whether and to what degree the adverse impacts of this project on the headwaters of the Embarrass River tributaries will be mitigated.	WR185

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5864	Furthermore, the SDEIS provides virtually no information about monitoring or maintaining the variation in flow to maintain natural conditions. The statement that “Effects on the success of fish spawning in tributary streams would be addressed by maintenance of seasonal, bankfull flows over the life of the NorthMet Project Proposed Action,” SEDIS 5-391, seems to be the only mention of maintaining seasonal variation in either watershed. Just how this will happen in light of the lack of a monitoring plan remains a mystery.	WR185, WR186
5866	We were unable to locate a mitigation plan for greater-than-expected drawdown in the flow of the Partridge River. The SDEIS seems to provide no information on the point at which action may need to be taken to avoid impacts. However, the plan does anticipate allowing baseflow to drop gradually by a predicted 4 to 7 percent during the first eleven years. SDEIS 5-381. At what point would a decision be made to augment or take some other action to protect the flow? If PolyMet would not be required to take action until the baseflow has dropped by twenty percent, that is unacceptable for the same reasons that apply to the Embarrass tributaries.	WR185, WR186
5867	the drawdown metric for the Partridge River would apparently be based on modeled rather than measured data. See SDEIS 5-381. The modeled data shows a significantly lower base flow than indicated by empirical measurements. If the drawdown metric is based on modeling data, the river will likely be drawn down far more than twenty percent before mitigation measures are required. The SDEIS should reveal the ultimate levels to which flow would be allowed to drop before mitigation is required.	WR003, WR086, WR130
5868	The scant information given on monitoring indicates the likelihood that whatever the loss of flow in either the Partridge River or the Embarrass tributaries, nothing is likely to be done about it. According to Table 5.2.2-53, SDEIS 5-219, flow monitoring for the Partridge River will be done “at/near SW-004a and SW-006.” Monitoring at these locations is unlikely to reveal the impact on flows upstream. The greatest predicted drawdown to baseflows is at SW-004 (noting again that SW-003 was apparently not modeled). A reduction in flow at SW-002 is also predicted; this point is miles upstream from SW-004a. PolyMet must be required to monitor the flow at each of these locations, with a mitigation plan that reveals at what point action would be required, and what that action would be. Hydrology at the site is simply too uncertain to allow the conclusion that drawdown of the river will not be significant.	WR138, WR187
5869	The entire SDEIS is silent in regards to any impacts on or monitoring of Yelp Creek. As explained, it appears that this project will have an impact on the hydrology that supports Yelp Creek. This impact must be discussed in the SDEIS, and a monitoring and mitigation plan proposed to protect this creek.	WR186
5870	The apparent flow monitoring plan for the Embarrass River and its tributaries is even worse than that for the Partridge River. SDEIS Table 5.2.2-54 reveals that flow monitoring will occur “at/near PM-13 and PM-12.” PM-12 is presumed to be upstream of any impacts, and PM-13 is four to five miles down-gradient of the tailings basin as the crow flies, and nowhere near any of the tributary streams. The SDEIS conclusions as to impacts on these streams are not believable in light of the apparent lack of any plan to monitor them. Nor would this situation be corrected by a decision to monitor the streams at the first evaluation points used in baseline monitoring and modeling. Each of these points occurs at or near the property line, which would still leave more than a mile stretch of each tributary stream unprotected. The SDEIS must provide an assessment of and a monitoring and mitigation plan for stream flow in the upper reaches of the Embarrass tributary streams.	WR071, WR139
5871	We were unable to locate a figure that shows proposed changes in topography at the tailings basin. These figures do not provide adequate support for the conclusory statements in the SDEIS that groundwater would not seep from the tailings basin to Spring Mine Creek or Second Creek and/or their upstream wetlands pursuant to the Proposed Project. See 40 C.F.R. § 1502.24.	WR054, WR117

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<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
5872	The SDEIS states that no water will flow to the east from the Tailings Basin because of high bedrock. SDEIS 3-117 and 4-99. However, all of the information presented in the SDEIS shows a break in the high bedrock in the area that forms the headwaters of both Spring Mine and Mud Lake Creeks. The Depth to Bedrock Figure, SDEIS Fig. 4.2.2-15, indicates that the depth to bedrock at this location is actually greater than it is around the north and west sides of the Tailings Basin. Based on satellite imagery, see Exhibit 34, and the wetland delineation map, SDEIS Figure 4.2.3-1, this area appears to consist of a string of wetlands and open water. It is difficult to discern the direction of flow, although possibly the roads and railroad tracks that cross the area currently act as the surface watershed divide. The groundwater flow pattern in this area is simply unknown. The SDEIS must make clear why, after years of work on this proposal, such directly relevant information remains unavailable. 40 C.F.R. § 1502.22.	WR102
5873	While PolyMet may be able to direct surface flow into the constructed swale, the SDEIS provides no explanation of why groundwater seepage will not flow to Spring Mine Creek...To comply with NEPA and to demonstrate compliance with federal and state discharge requirements, the potential for discharge to Spring Mine Creek must be assessed and disclosed in the SDEIS using accurate mapping and real data.	WR054, WR102
5874	it appears from the groundwater contour map that water from the East Pit is likely to enter the Partridge River above SW-003. The SDEIS insinuates as much when it states, "The dike located north of the East Pit would remain in place to minimize mixing of the Partridge River flows with the East Pit water." SDEIS 3-71. The text does not explain how the dike will prevent the outflow of groundwater in that direction, and the subject is not mentioned again in the assessment of impacts.	WR089, WR163, WR167
5875	the water quality impacts of the Proposed Project have not been assessed for this entire stretch of river – from Yelp Creek to SW-004. Rather, the model assumed that SW-003 would be unimpacted and that most groundwater inputs from the mine site would occur prior to SW-004. While this is valid for the purpose of comparing background water quality to impacted water quality at SW-004, it is not valid for assessing impacts on the rest of the river.	WR177
5876	The AECOM documents reference the document "Barr Engineering Company. 2007. Wetlands in the USFS Land Exchange Area. Memorandum dated 29 November 2007. Prepared for PolyMet Mining Company, Hoyt Lakes, Minnesota. Minneapolis, Minnesota." This document does not seem to be included in the SDEIS reference material.	NEPA07
5877	Table 4.3.3-2 was apparently included in order to compare the functions of the lands that will be lost to the federal estate to functions that exist on the property that will be gained by the federal estate. The accompanying discussion does not actually assess the functions that will be lost to the Partridge and St. Louis River watersheds. Such an assessment must be included in the wetland impacts section of the SDEIS, accompanied by an assessment of the degree to which the loss of those functions will be replaced by the proposed mitigation.	WET17
5878	The SDEIS provides no quantitative predictions regarding water quality impacts in the wetlands. It does state an assumption that water quality will change, but it does not discuss the potential degree of change or the consequences of those changes. Instead, it promises "consideration in future monitoring." SDEIS 5-283. Also, the SDEIS separately discusses air deposition, railroad spillage, and groundwater transport, but does not discuss the additive effect of pollution from all three sources. As explained below, significant changes in water quality are likely, to the point of violating water quality standards. These impacts must be disclosed and discussed in the SDEIS.	WET11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
5879	the level of water quality impacts in general as assessed in the SDEIS is based on a flawed model that most likely seriously underestimates the flow of groundwater. This underestimated flow could significantly affect the prediction of mercury increases in wetlands, particularly from the Overburden Stockpile and Laydown Area, the Category 1 Waste Rock Stockpile, and the East Pit. Similarly, the SDEIS is unrealistically optimistic about the amount of Tailings Basin seepage that will be collected, and the amount of mercury from that source is also likely to be greater than might be supposed based on the SDEIS.	MERC11, MERC20, WR018, WR019, WR052, WR054, WR058, WR060, WR061, WR064, WR087, WR090, WR091, WR099, WR108, WR158, WR165, WR179
5880	The SDEIS completely ignores potential impacts to the wetlands between the Category 1 Stockpile and Yelp Creek. If the water collection system is not 100 percent effective, Category 1 Stockpile leachate is likely to travel in that direction. East Pit porewater is also likely to travel north and east into adjacent wetlands. These areas need to be included in an assessment of water quality impacts on wetlands.	WR017, WR019, WR020, WR021, WR058, WR081, WR089, WR167, WR177
5881	the proposed PolyMet mine’s direct and long-term destruction of two square miles of designated lynx critical habitat, along with the mine’s adverse impacts to at least one of the few remaining travel corridors for lynx, would result in the “destruction or adverse modification” of critical habitat, which is prohibited by the ESA. 16 U.S.C. § 1536(a)(2). The conversion of the critical habitat at the Mine Site to an open-pit mine would destroy and adversely modify all of the primary constituent elements for Canada lynx identified by the U.S. Fish and Wildlife Service, including the destruction of boreal forest landscapes that support a mosaic of forest stages, sites for denning, and matrix habitat allowing for travel and habitat connectivity. See 74 Fed. Reg. 8616, 8638 (Feb. 25, 2009) (Final Rule designating Canada lynx critical habitat)...the SDEIS entirely fails to consider or address the impacts of the proposed mine project on lynx recovery. By significantly adding to the widespread cumulative impacts of mining projects and other development across this region, including contributing to the continuing decrease in available travel corridors, the proposed mine project is likely to appreciably contribute to the diminishment of the chances for the lynx population in this region to recover, and to be eventually taken off the list of threatened species. The SDEIS’s failure to consider this fundamentally important factor concerning lynx violates NEPA and the ESA.	WI01, WI02, WI03, WI11
5882	The SDEIS’s cumulative effects analysis for wildlife, for both the proposed mine and the proposed land exchange, entirely fails to even mention moose. SDEIS 6-50 to 59 and 6-122 to 126... The agencies’ failure to address such a fundamentally important factor in the SDEIS violates NEPA. See <i>Foundation for North Am. Wild Sheep v. U.S Dept. of Agric.</i> , 681 F.2d 1172, 1178 (9th Cir. 1982).	WI01
5883	Similarly, even though the SDEIS claims that the cumulative impacts analysis for wildlife is focused on potential losses to sensitive species and their habitat, including federally listed species, SDEIS 6-50, the cumulative impacts analysis for the proposed mine fails to mention or address Canada lynx. SDEIS 6-50 to 59. This is despite the likely presence of lynx in the area, its designation as a federally listed species under the ESA, and the formal designation of critical habitat for lynx across much of the region. As with moose, there will undoubtedly be cumulative impacts to lynx and lynx habitat as a result of widespread mining, mineral exploration, and other activities in this region, and the failure to address and disclose these cumulative impacts in the EIS violates NEPA.	WI01, WI02, WI11
5884	Remarkably, the SDEIS excludes any consideration of the Twin Metals proposal, claiming that it is a “speculative action.” SDEIS 6-13. From its 8,800 square-foot headquarters in Ely that was constructed in 2011, to its 2014 “mid-prefeasibility” update, to its past and ongoing exploration throughout the region, to its proposed hydro-geologic study, and the ongoing consideration of the environmental impacts of its proposed lease renewals by the BLM, many components of the Twin Metals proposal are far beyond “speculative,” and are instead ongoing or at least reasonably foreseeable.	CU02, CU07

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<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
5885	Furthermore, the area of analysis and the sources that are considered should vary according to the nature of the resource and the impacts. The SDEIS cumulative impacts assessment names a certain set of sources, and then limits the analysis to contributions from those sources. This may be the current methodology used by the State of Minnesota, but it does not meet the requirements of federal law. Under the federal regulations, the cumulative impacts assessment must consider all sources, past, present, and future, that contribute to the impacts at issue. 40 C.F.R. § 1508.7. This requires a scope of analysis that will vary based on the impacts and resource that are being assessed.	CU03
5886	This improved and more detailed cumulative impacts analysis [developed by the Tribal Cooperating Agencies] must be carefully considered by the agencies and disclosed to the public in the final EIS.	CU12
5887	Nor should this facility be permitted if it will contribute to non-attainment of the 2018 goal...Even if mining and processing began before construction ended, it is highly unlikely that the primary sources of air emissions would be in operation before 2018. And even if they theoretically could be, not taking account of an immediately pending goal defies common sense.	AIR13
5888	PolyMet is now making the same arguments. It says the amount of true asbestos that can be found in the Duluth Complex is miniscule. It says only harmless cleavage fragments are involved. It is chilling that the same experts that defended W.R.Grace at Libby, Montana have been involved in preparing PolyMet's fibers analysis. Worse, PolyMet repeats some of the false claims these consultants have made at other sites – even though EPA has shown the claims to be incorrect.	AIR03
5889	The SDEIS also fails to acknowledge that under an underground mine alternative, a land exchange with Forest Service would no longer be needed to allow for a strip mine, and that therefore environmental sensitive areas such as the 100 Mile Swamp and lynx critical habitat, along with tribal historical and cultural resources, would remain in federal control. Moreover, because water quality and water quantity impacts would be reduced under the underground mine alternative, perpetual mechanical water treatment might not be necessary to meet water quality standards, as it would be for the open-pit mine alternative.	ALT01, ALT06
5890	We also note that these assessments [of the non-federal lands] were done by the same firm that did most of PolyMet's technical and scientific work. SDEIS at 5-578. We are not casting aspersions on Barr Engineering when we say that this firm has a conflict of interest and should not have been contracted for this work. This is simply a matter of professional standards and avoiding the possibility of unconscious bias.	LAN03
5891	We submit that the proposed land exchange does not promote opportunities for better management of Federal lands and resources. The land that will be lost is a large, unfragmented area of high biodiversity, with rare plants and hundreds of acres of high quality, pre-European condition wetlands. It is unclear why or how management needs to be improved over the manner in which this parcel has been managed until now. Once again, because the Forest Service has no real reason of its own to give up this land, there simply seems to be no need for "opportunities for better management." While we appreciate the use of the listed "indicators" to ensure that management opportunities will not in fact be less with the acquired lands, the way this exercise has been conducted is as a solution looking for a problem.	LAN07
5892	Furthermore, the local economic impacts of relying on mining for economic development are more likely to be negative than positive in the long term. The discussion of this issue above in the section on economic impacts is especially pertinent to the Forest Service's decision.	SO01
5893	The Land Exchange portion of the SDEIS focuses on losses to the federal estate; because the Forest Service is exchanging land for the Mine Site, those losses are minimized. But the public interest review is not limited to impacts on the federal estate; the question is, taking account of all the ramifications, would the public interest be well served. In addition, NEPA requires the Forest Service to consider all of the environmental impacts of its actions, which clearly include the impacts of the proposed mine.	LAN01

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<b>Sender Name (Submission ID)</b>	Northeastern Minnesotans for Wilderness (42985)	
5894	Earlier sections of these comments explain the negative impacts of this project on waters and wetlands throughout the project area. These are all impacts of the Land Exchange Proposed Action, and should be considered in the public interest review. These impacts include increased mercury loads; increased sulfate in wetlands, which contributes to mercury methylation and the production of hydrogen sulfide; violations of the water quality standard for lead; and potential violations of other water quality standards. In addition, the Proposed Project will impact hydrology.	LAN01
5895	The Forest Plan also states that “wetlands will be managed to prevent the reduction of their water quality, fish and wildlife habitat, and aesthetic values. Management actions will not reduce water quality within a wetland, or upstream or downstream of a wetland, unless restoration of natural conditions is the primary goal of the activity.” USFS 2004b at 2-15. The Forest Service’s “management action” here, the Land Exchange Proposed Action, will most certainly “reduce water quality within a wetland, or upstream or downstream of a wetland.” As restoring natural conditions is not a goal of the activity – whether of the land exchange, or the mine – the Land Exchange Proposed Action does not conform to the Forest Plan, and must be withdrawn.	LAN04, WET16
5896	In addition, the federal lands appear to provide excellent moose habitat. The Superior National Forest is the last remaining refuge for moose in Minnesota, where the species is declining precipitously. The SDEIS barely mentions moose, and does not assess impacts of the Proposed Project on this species, which is listed as of special concern by the State of Minnesota. Finally, the project may have significant impacts on migratory birds; this issue has been insufficiently assessed.	WI01, WI02
5897	the exchange consolidates PolyMet’s land interests, but does not consolidate the Forest Service land interests. In fact, as explained above, the Forest Service will have less right to limit mining on the new lands than it had on the old. This does not well serve the public interest.	LAN04
5898	the outcome of this transaction would be to decrease protection across the forest landscape (under all types of ownership) from the ravages of strip mining. Relatively few of the parcels will be subject to the restrictions that are present in the Federal land, and the restrictions on the Federal parcel will be lost. Few of the non-federal parcels will have restrictions added to the current deed; most of the land will be no more protected from strip mining under Forest Service ownership than it is under private or state ownership. This loss of protection of surface property and all of the benefits it provides to humans and other species does not well serve the public interest.	LAN04
5899	Many of the criteria under Priority 2 also apply more strongly to the federal than the non-federal lands. In particular, this land is environmentally sensitive and ecologically rare, and the wetlands are very valuable. In general, while the non-Federal lands may be wonderful properties that the Forest Service would be happy to have, that does not alter the fact that the Federal land is also a wonderful property that the Forest Service was happy to have up until now. This criteria may be appropriate to use strictly for the purpose of deciding whether the non-Federal lands would be acceptable, but that should not be allowed to spill over onto the question of whether the Federal lands are appropriate to dispose of in the first place.	LAN04
5900	The Forest Plan includes many other provisions that the SDEIS completely ignores.	LAN04
5901	Many of the watershed provisions [i.e. D-WS-1, D-WS-4, D-WS-5, D-WS-6, D-WS-13, O-WS-1] in the Forest Plan dictate against facilitating the NorthMet project.	LAN04
5902	the Land Exchange Proposed Action would not well serve the public interest because it is contrary to several additional federal policies. Exchanging this land would result in a project that would be counter to many important environmental objectives of the federal government. Most of these issues are discussed in more detail in other sections of these comments. They include:• The mercury Zero Discharge goal for the Lake Superior basin;• The “broader program” to restore and protect the Lake Superior basin;• Efforts to reduce greenhouse gas emissions;• Efforts to ensure that the federal and state governments (and taxpayers) are not left with clean-up costs for polluted mine sites;• Protection of potable water and of drinking water wells;• The reduction of haze in Class I areas.	LAN01

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<b>Sender Name (Submission ID)</b> Northeastern Minnesotans for Wilderness (42985)		
5903	Finally, it is particularly troublesome that the Forest Service is exchanging some of its acreage specifically to accommodate PolyMet’s emissions. SDEIS at 3-173. One has to wonder whether the Forest Service would be giving up additional land if PolyMet was seeking higher emission limits. It is unclear what boundaries were changed on this basis, but it is particularly objectionable if the additional land includes the Partridge River, which will undoubtedly experience degradation from the deposition of air pollutants, an impact that is completely ignored in the SDEIS. At any rate, the policy of exchanging as much land as a polluter requires to attain ambient air quality standards at the property line surely does not well serve the public interest.	ALT23
5904	The agencies should honor the commitments the various governments around Lake Superior made to the people of the Lake Superior basin, and deny authorizations based on the failure to meet the Zero Discharge goals of the Binational Program to Restore and Protect Lake Superior.	MERC01
5905	Rather than permitting hydrological changes and the addition of pollutant stressors (which could include air deposition as well as discharges) to an already impaired system, the agencies should be identifying stressors and addressing already existing sources of impairments. Permitting this project would fly in the face of the wisdom that underlies the Clean Water Act in regard to impaired waters.	PER09
5906	The Mine Site is part of the Superior National Forest, which is open to tribal members for exercise of their treaty rights. The Co-Lead Agencies apparently believe that land is fungible for this purpose; replace it with access to other lands, and there has been no loss. This rationale follows the patronizing attitude of this country’s past, which has been devastating to native culture and interests. We suggest that it is the place of the Tribes – not the Co-Lead agencies – to determine whether the exchange of lands is acceptable in regards to the exercise of treaty rights. If in the Tribes’ judgment it is not, the land should not be traded to a private entity.	LAN05
5907	The Proposed Project would also impact historical and cultural resources that are important to the Ojibway Tribes and people of this region. This alone should convince the agencies to refuse to allow PolyMet to strip mine this land.	CR05
<b>Sender Name (Submission ID)</b> Northern Organizations (52184)		
5923	It is our concern that the cumulative impacts of current taconite mining, taconite expansion, mineral exploration, and proposed copper-nickel sulfide mining places the ecological balance of the lakes and wilderness region of northeastern Minnesota at risk.	CU11
5924	The opening of a sulfide mining district would displace existing jobs, and the potential for continued jobs that are based upon clean water and wilderness resources. Instead, we would be leaving future generations with a legacy of water contamination lasting for centuries.	SO02
5925	[Save Lake Superior Association was] formed in 1969 to stop the discharge of taconite tailings into Lake Superior by Reserve Mining Company. This waste material contains many of the same toxins such as mercury and asbestos fibers that would be generated by the mining and processing of sulfide ore by PolyMet Corporation as disclosed in their SDEIS on the NorthMet Mine. As stakeholders we are concerned about the potential destruction of natural habitat and the pollution of both air and water in the Lake Superior and its watershed that would be associated with this project.	AIR02, CU11, CU17, HU01
5926	Lake Superior and its watershed are downwind and downstream from current taconite and proposed sulfide mining both of which emit these toxic substances. Even now our members, friends and families, especially children, must limit their fish consumption due to the continuing pollution. Many are unaware of danger and continue to consume the fish. Other visitors to the local parks, streams, trails, shoreline and the lake itself, part of which Minnesota owns, are unknowingly exposed to these toxins. This is an ongoing environmental threat which would increase the pollution of the air we breathe and the water we drink.	HU03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Northern Organizations (52184)	
5927	[T]he proposed NorthMet Mining Project and Land Exchange would result in the permanent destruction of high quality wetlands and wildlife habitat, and long-term water and air pollution. The [Center for Biological Diversity], its staff, and its members and the interests of its staff and members would be significantly harmed and injured if the proposed project is approved and allowed to be implemented.	COE04, SO02
6003	Children born in our region already show high levels of mercury, this is terribly dangerous and we do not support allowing more sulfate – which is widely known to make mercury more bioavailable – into our waters. Rivers in our region are not responding to decreased airborne mercury with correlating decreases of mercury in the water. Children’s intelligence and ability to communicate can be harmed by mercury exposure during development.	HU03, MERC03
6004	The Club’s particular interest in this case and the issues which the case concerns stem from this proposed project's potential impacts on Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife, and cumulative impacts from mining.	CU14
6862	The Cu-Ni Study also set up an air-sampling network in northeastern Minnesota. It consisted of 6 sites located around the expected area of Cu-Ni mining. Peter Ashbrook compiled a report in 1978, which provides the details of the sampling program, including an analysis of wind directions and fiber concentrations. ...This analysis shows that 1) the source of amphibole fibers in ambient air samples was probably the mines at the eastern end of the Biwabik Iron Formation (Peter Mitchel Pit and Dunka Pit), and/or 2) a taconite processing facility in Silver Bay. The PolyMet mine will be adding another source in the same area, which will add to the current fiber levels.	AIR03
6952	We know there are amphiboles in the Duluth Complex in variable amounts. The SDEIS is supposed to provide data and an assessment of PolyMet’s proposed action. The TEM fiber analysis that was carried out by Barr is worthless for any quantitative assessment of the impact of amphibole fibers from PolyMet’s processing. The SDEIS is deficient in providing that information.	AIR03
6957	Amphibole minerals are present in the Partridge River Intrusion, the ore that PolyMet will be mining... In the SDEIS, a mining map shows they will be mining in Unit 1, an area of abundant inclusions and local ultramafic layers... Although all researchers agree that the incidence of asbestos in the Partridge River Intrusion is probably low (from the Stevenson Thesis), Barr Engineering did find an asbestos fiber when they did their analysis.	AIR03
6962	Wind directions are important for ambient fiber levels in the region. Fiber concentrations are highest when the wind blows from the northeast part of the Biwabik Iron Formation, that is, from the mines. Fiber levels were lowest when the mine was shut down by a workers strike. Additional data from the Minnesota Pollution Control Agency (MPCA) samples for Babbitt should be investigated for impacts from the mine.	AIR03
6975	The comment period was too short for a full analysis, but at least one relatively recent data point has the amphibole fiber concentration in Babbitt at 11,957 fibers/cubic meter on August 10, 2008 (MPCA Sample number 200829402). The wind was blowing from the south directly from the Peter Mitchell Pit. Additional mining in this area will only exacerbate the ambient air problem.	AIR03
6977	Cumulative effects from NorthShore Mining’s Peter Mitchell Pit should be considered.	CU02
6978	The tailings will contain amphibole fibers and should be considered as asbestos containing.	AIR03
6995	The TEM analyses performed to assess PolyMet’s potential to generate harmful mineral fibers is tainted by additional grinding of the samples, and produced results that cannot be used for assessment of health impacts from mineral fibers.	HU01

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<b>Sender Name (Submission ID)</b> Northern Organizations (52184)		
7310	The dose of fibers with an aspect ratio greater than three had the most explanatory power for tumorigenesis and in vitro response. Thus we cannot disregard short, thin fibers. The numbers of thin fibers of all lengths are a better predictor of carcinogenicity than the number of long fibers. Surface area may be as important as fiber length in assessing risk. Of course, long fibers have more surface area, thus length is highly correlated with surface area. However, short thin fibers might also be hazardous.	AIR03
15658	sulfide mining in all other regions of this country, as well as globally, has left behind a trail of Acid Mine Drainage or heavy metal contamination that can last for centuries. This contamination is especially hard to contain in water rich environments, such as those of northeastern Minnesota.	WR023
15662	It is already known that taconite mining is having an impact upon the St. Louis River watershed, which drains into Lake Superior. Lake Superior contains 10% of our nation's water supply. Because Lake Superior borders both the U.S. and Canada, any on-going pollution is a matter of international concern.	WR111
15670	The Polymet project would result in substantial pollution and requires significant human intervention for an indeterminate period of time to keep that pollution from flowing into the water. At a time when our nation is spending millions to clean up the St. Louis River it seems foolhardy at best to add any pollution upstream as it would do in at least one river as described in the SDEIS even if everything functions as well as hoped by planners.	WR035, WR037, WR107, WR108, WR111, WR115, WR128, WR129, WR158
<b>Sender Name (Submission ID)</b> Novelett Jensen (39590)		
13483	Say NO to Polymet and say YES to a beautiful, healthy Minnesota for our generation and generations to come, PLEASE.	SO02
<b>Sender Name (Submission ID)</b> Nurmi Family (5)		
249	I am appalled at the cost incurred by Polymet for a permit to provide jobs... it is the responsibility of our state DNR to give out or deny permits in a timely manner. ... There should be no place for special interest groups or even guys like me.	PER20
303	it is the responsibility of our state DNR to give out or deny permits in a timely manner.	PER20
305	If the DNR does not believe Copper/Nickel Mining has more benefits than downs, pay Polymet back for the costs incurred and stop the whole thing.	SO01
<b>Sender Name (Submission ID)</b> nursnews (7056)		
460	Please do not let Polymet or any other mining entity exploit one of the finite and few semi-pristine wilderness environments left in the country.	VEG10
461	Please consider what can and likely will go wrong in the plan to "contain" contaminated water for hundreds of years.	WR021, WR130
462	The environmental impact of this proposal on the lakes, the air, the sound and the sights in the Ely area will be devastating.	N01
<b>Sender Name (Submission ID)</b> Nyla Lewis (16045)		
9521	I am very concerned with any mining that will affect water and/or air quality.	AIR11

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<b>Sender Name (Submission ID)</b>	Nyla Lewis (16045)	
11035	With all the news stories of spills and leaks into the water supply, I am very concerned of the possibility of that happening here.	WR070, WR202
<b>Sender Name (Submission ID)</b>	Oeljen Vicki (44636)	
12228	I believe we are trading short term financial advantages for irreversible environmental challenges for generations to come.	SO01
<b>Sender Name (Submission ID)</b>	Office of the Minnesota State Auditor (42929)	
3789	The financial risks to taxpayers from nonferrous mining are well documented. The United States Government Accountability Office (GAO) has issued a series of reports on the adequacy of financial assurances and hardrock mines, and found methods used to date inadequate... It is clear from both government and industry perspectives that Minnesota needs to proceed cautiously when it comes to protecting the taxpayers from having to assume any cleanup costs associated with the proposed mine.	FIN01, FIN08, FIN10
3793	The DNR is required to promote mining and regulate it at the same time. The promotion of mining is intended for the benefit of the taxpayers and should not in any way reduce or diminish protecting the taxpayers and their other valuable natural resources. Minnesota rules allow the Commissioner of the DNR to exercise discretion when determining the size and types of financial assurances that will be acceptable, with some guidance in the rules.	FIN03, FIN08
3794	In exercising the Commissioner's discretion, it is not acceptable to burden or degrade current or future generations of taxpayers. These risks should be taken into consideration when the Commissioner analyzes the financial assurances finally proposed.	FIN03, FIN08, FIN09
3797	Whether the financial assurance instrument is truly bankruptcy-proof may not be known until the judge issues the opinion. The very best legal experts with years of experience in corporate bankruptcy should be consulted when analyzing the details of any instrument. The financial risk with nonferrous mining is high and the taxpayers deserve nothing less than the best to represent them.	FIN01, FIN03, FIN08, FIN09
3808	financial assurance instruments are identified in the SDEIS, at page 3-139. Not all forms currently named in the SDEIS are necessarily bankruptcy-proof [i.e., surety bonds and trust funds]... Because Minnesota rules require the instruments be bankruptcy-proof, this information needs to be thoroughly, transparently, and satisfactorily addressed when determining if a surety bond will truly be bankruptcy-proof to protect the taxpayers... Unless the trust [fund] is irrevocable, it may not be bankruptcy-proof...	FIN01, FIN03, FIN08
3809	A Surety bond is obtained from an approved surety company guaranteeing that the obligation will be met. However, "[b]onding underwriters will not provide a surety bond if it is determined that a site will have long term pollutional discharges since it is clear that the bond will not be released."5 Another risk of bonds to the State and ultimately the taxpayers is that the Commissioner probably has little experience with them.	FIN01, FIN08, FIN09
3813	The DNR would need to monitor the [Irrevocable] letter of credit for the duration of the exposure to ensure that it has not expired. Another risk the Commissioner needs to consider and do further research on is what would happen if the bank that issued the letter of credit goes into receivership.	FIN01, FIN03, FIN08
3814	The above scenario falls into the "failure or limitations on the ability of third parties to pay reclamation costs" as identified on page 3-138, section 3.2.2.4.2 Financial Assurance Instruments. It is very probable that over the next 20 years, there will be more bank failures. The Commissioner needs to do further research to adequately assess the appropriateness and risks of this type of financial assurance instrument... PolyMet acknowledges these risks related to the financial markets in its financial statements...	FIN01, FIN03, FIN08

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<b>Sender Name (Submission ID)</b>	Office of the Minnesota State Auditor (42929)	
3820	The risks related to cash and cash equivalents are low if the cash is within the custody and control of the State and is not available to pay creditors should a bankruptcy occur. This is a desirable form of assurance for the taxpayers.	FIN01, FIN03, FIN08
3821	One of the risks of a trust fund is the timing of funding required by the Commissioner. If the Commissioner allows a “payment plan” for PolyMet to fund the trust fund, there is a substantial risk to the taxpayers. If a trust fund is not fully funded and PolyMet goes bankrupt, or walks away because commodity prices drop, we have opened the ground, and water treatment will be required, but we will not have the funds to pay for it for the estimated 200-500 years. The burden then gets shifted onto the taxpayers.	FIN01, FIN03, FIN08, FIN09, FIN10
3822	There are risks for taxpayers associated with insurance policies, if PolyMet can even obtain one. The insurance company must be solvent. The insurance policy itself must be carefully reviewed by someone with sufficient expertise to verify it fully covers all anticipated claims. Use of an insurance instrument requires the DNR have an understanding of claims that should be made and the timing and procedures required to make them. The financial risk to government varies, depending on the specifics of the policy and the solvency of the insurance company.	FIN01, FIN08, FIN09
3823	Of particular concern are policies that are written by “captive” insurance companies, which are wholly-owned subsidiaries controlled by parent companies in existence to insure the parent company and its subsidiaries.	FIN01, FIN08
3824	In its Financial Statements for 2011, PolyMet identified a number of unanticipated risks and insurance exposures: [including that] PolyMet may not have adequate, if any insurance coverage for some business risks that could lead to economically harmful consequences to the Company.	FIN01, FIN08
3825	PolyMet is a Canadian “junior” company. It has never operated a mine, and has no experience mining. It has no track record, and has very few assets... There will be a greater chance of “unanticipated liabilities” with a Junior company (see 3.2.2.4.2 page 3-138 of the SDEIS). Because of this, the Commissioner should require a greater amount of financial assurances to adequately protect taxpayers from unanticipated liabilities.	FIN01, FIN02, FIN03, FIN09
3826	Glencore Xstrata is a major shareholder of PolyMet, giving it some control of the project. Glencore Xstrata is a large multinational mining company that does have assets from which to draw from if needed. If Glencore Xstrata could be put on the permit to mine for the project, their assets could provide some assurance to taxpayers.	PER02
3827	It is important to note that Minnesota’s surface and groundwater are valuable assets of the state...When determining the size of the assurances required, protection against degradation of other valuable commodities and resources is critical. Like the nonferrous minerals, this water belongs to all Minnesotans, and should be protected by larger assurances. This will help incent PolyMet to mine with care, and protect the taxpayers from being saddled with a large financial liability and/or degradation of a valuable commodity.	FIN05, FIN10
3830	The Commissioner is required to review the mine annually to see if assurance amounts need to be adjusted. This is acceptable to a point. There is great risk if the Commissioner, in “his discretion”, accepts only what PolyMet says they can afford, assuming the DNR can collect more later. The DNR has assured the public that they can pull permits from mining companies if they owe more in assurances and do not pay or have other violations. The risk with this approach is that it exposes the state and taxpayers to political will failure...Due to the political will risk, the Commissioner must get an adequate amount up front to protect taxpayers and not assume more can be secured later.	FIN01, FIN05, FIN08, FIN09
3831	In determining the size of assurances required, there is significant risk of settling for too little because of predictive failure. The ability of the Commissioner to determine how to calculate the cost for reclamation of the site is probably not a difficult task with the help of experts familiar with this type of work. However, the Commissioner’s or anyone’s ability to calculate the cost of water treatment for 500 years is probably impossible.	FIN05, FIN09, FIN13

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Office of the Minnesota State Auditor (42929)		
3832	the State does not have the expertise necessary on staff to adequately protect taxpayers when assessing the types of assurance instruments and the size and adequacy of the assurances or the legal language in the assurances. The Commissioner of the DNR should hire top outside financial, legal and scientific experts who practice regularly in their respective areas and who have experience with nonferrous mining, to represent the State and the taxpayers' interests to fully mitigate the risks described herein.	FIN05, FIN08, FIN09, FIN13
3932	The amount of oversight and enforcement effort needed by the DNR for the duration of a specific financial instrument should also be taken into account. Special expertise may also be needed.	FIN08, FIN09
3950	Some of the risks identified [in Form 20F PolyMet submitted to the SEC]..., i.e., environmental hazards and pit wall failures should be covered by the financial assurance... If these risks are not insurable, alternative financial assurance arrangements must be found, or the project should not proceed.	FIN08, FIN12
3955	The probability of predictive failure should raise serious ethical and financial questions about whether Minnesota should be entering into a project where short term benefits are realized, but the potential pollution from waste rock will be in our state hundreds or perhaps thousands of years.	SO01
<b>Sender Name (Submission ID)</b> Oliver Garrison (39326)		
12788	I'm also of the belief that the short-term economic gain produced by mining will be lost many times over with long-term scarring of the countryside that we as Minnesotans hold to such high regard.	SO01
<b>Sender Name (Submission ID)</b> Olivia (Vivi) Grieco (57172)		
18691	I am passionate about developing economic equity in an environmentally sustainable way. It is vital that we think beyond the next 20 years and think about clean water in our state for our children and grandchildren.	SO02
<b>Sender Name (Submission ID)</b> Olivia Jane Riggins (57195)		
17081	the PolyMet mine would be a threat to future generations and current American Indian groups.	CR01
17082	Not only is it incredibly short-sighted to believe that PolyMet will continue the necessary cleanup,	FIN01
<b>Sender Name (Submission ID)</b> Olivia Ridge (42557)		
6886	The most daunting portion of the EIS, to me, is the following from section 3.2.2.3.10 page 3-117: "Performance modeling of the containment systems performed by PolyMet and reviewed by the Co-leads provides strong evidence that the capture efficiency would be greater than 90 percent." Anything under 100% will pollute the waters, guaranteed. Over any period of time, this will have true serious and devastating affects that concern every Minnesotan.	WR038, WR115
6887	According to Minnesota State Law 6132.3200, a site must be maintenance free at closure. The infrastructure required to maintain the reverse osmosis process will, in all likelihood, require some maintenance over the length period needed to treat the water, be it 20 years after the mine closes or 500. I do not understand how this complies with state law.	PER04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Olivia Ridge (42557)	
17054	Additionally, I ask that financial assurances be included in the Final Draft of the Environmental Impact Study. The economic impacts to the area and the greater Minnesota cannot be fully understood without any knowledge of what PolyMet can offer us as financial assurances. I ask that this piece of the issue is studies and included now before the public accepts any part of the project.	FIN13
<b>Sender Name (Submission ID)</b>	omar (1819)	
597	northern MN needs the new jobs [the NorthMet Project would provide].	SO10
<b>Sender Name (Submission ID)</b>	Opel McCarthy (58124)	
19957	Our primary support system... is the sun, the earth, the water, and the plants and animals that live within its system. The Polymet sulfide mining project would critically damage three of [these] systems which we depend upon to survive.	GT01, SO01
<b>Sender Name (Submission ID)</b>	Oren Olson (46698)	
9212	Minnesota needs good paying jobs. We have plenty of minimum wage jobs	SO10
9215	the sdeis has been a very long and involved process. I trust the state and federal agencies have figured out a way to mine safely.	NEPA16
<b>Sender Name (Submission ID)</b>	Oscar Diaz (57186)	
18655	I hear the boundary water is a great place to go. Please save so I can go someday.	WILD02
<b>Sender Name (Submission ID)</b>	Owen (11262)	
1581	polymet mine should only get the go ahead if all lands currently proposed are given for the federal lands and under the condition that all federal lands revert back to federal ownership after the 20 year period and after polymet does land reclamation	LAN06
1582	also giving lands that already exist does not make up for destroying an equivalent amount of land, so polymet should have to pay an additional fee of 3,000 an acre to the dnr to make up for the destruction of habitat that will occur	VEG03
<b>Sender Name (Submission ID)</b>	Owner (46038)	
10435	...the risks in a human endeavor such as this is not worth the irreparable harm to our beloved Minnesota environment. Given the imperfect nature of all human projects, it is not IF but WHEN problems arise. Short-term gains will go mainly to the multinational corporations that champion this project, but the resultant problems will accrue to ordinary Minnesotans.	SO01
10439	[PolyMet's] main selling point seems to be jobs, but the best, and most, of these will go to professionals from around the globe.	SO06
<b>Sender Name (Submission ID)</b>	Owners Computer (10227)	
377	The accumulative affect from all the toxins is horrible beyond belief and I fail to approve of the surge in mining or drilling to increase profits when it is costing every individual in the country his life.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Owners Computer (10227)		
1446	... the project for mining heavy metals is a hazard to our health by negatively affecting the increase in pollutants in our environment. The metals themselves are toxic and the process that claims them with sulfuric acid is bad.	PD01
<b>Sender Name (Submission ID)</b> P May (45536)		
15782	Sulfide mining brings with it a risk of acid mine drainage. This risk is particularly high in areas with lots of water, such as Superior National Forest. This pollution can last for anywhere from 2,500 to 10,000 years.	WR001, WR115
15783	This mine will only create around 360 jobs.	SO01
<b>Sender Name (Submission ID)</b> Pa Yao Vue (54234)		
16810	The map in the environmental impact statement is wrong. They can't just redraw a map. Take a look at the map again. The polymet people left out 100 miles of the swamp. Governor Dayton needs to make the MN DNR do its job correctly. Use the correct map and measure the percolation of the water. They have to prove that the mine will NOT pollute the boundary waters. I don't want the boundary waters to be polluted for the next 500 years or so.	PD38
<b>Sender Name (Submission ID)</b> Palmira Brummett (40741)		
6673	Please keep in mind that wetlands once destroyed take generations and more to redeem, if they are redeemable at all.	WET24
14046	As a nation, we cannot afford to poison the protected lands and waters that we have left for the personal gain of a few.	SO01
<b>Sender Name (Submission ID)</b> Pam Backstrom (4272)		
10716	I would like to comment in support of the SDEIS for the proposed NorthMet mine. This has been studied and evaluated by several agencies of the State of Minnesota and the Federal Government. The proposal for a mine, as laid out in the SDEIS, meets the standards that are set by all the agencies involved.	NEPA16
10720	[The Land Exchange] will reclaim and add to state wetlands in exchange for the wetlands taken over by the mine. It results in a net gain in wetland acreage.	WET25
10722	The effect on water resources in the mine area, and in the Lake Superior basin has been thoroughly reviewed by the agencies involved, and has been deemed to be satisfactory. The proposed mine meets or exceeds the standards set in Minnesota state law and federal initiatives.	WR190
10724	The mine will meet air quality standards, as laid out in the SDEIS. It will not affect air quality in the BWCAW.	AIR14
10732	It is a logical re-use of a brownfield site in the plant location and in parts of the mine site, as well as existing rail lines.	PD28
10734	Approval of the proposed mine will create many direct jobs in the eastern end of the Iron Range, and will contribute many dollars in tax revenue to the State of Minnesota, the Federal government and to the local communities. In addition, indirect jobs will be created and the unemployment rate in Northeastern Minnesota will decline.	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Pam Backstrom (4272)		
10735	There will be up-front monetary guarantees for the monitoring of water, air, wetlands, etc. after the mine closes. The mine closure plan is sufficient to maintain all the water quality standards that are now in place.	FIN16
10736	I would like to encourage the US Corps of Engineers, USFS, and the DNR to publish a final EIS in a timely manner. I also want to urge the Commissioner of the DNR to declare the EIS adequate, and everyone involved to move the permitting process forward.	NEPA16
<b>Sender Name (Submission ID)</b> Pam Fischer, RN (34976)		
13281	Sulfur mines pollute EVERYTHING! They send toxins into the waters, the air and the land.	GEN03
<b>Sender Name (Submission ID)</b> Pam Frink (17511)		
1976	[The SDEIS] does not provide details as how up to 500 years of operating, maintenance and monitoring will occur and be paid for water treatment facilities. ... What will happen if Polymet and its backers decide they want to abandon this project in say 50 years? What guarantee is there that someone will continue to monitor and treat polluted waters for the remaining 450 years?	FIN01, FIN05, FIN11, WR035
1977	Another reason I feel the SDEIS should not be approved is the inaccurate water flow model that was used in the impact statement. This error causes many of the assumptions about future mercury levels to be questioned. This data must be corrected and resubmitted for further study by the public.	MERC11, WR003, WR086, WR091
1978	I did not see where any study was made of an underground mine instead of an open pit mine was considered. ... I believe an underground mine would be less destructive than the proposed open pit mine.	ALT01
1980	only some (912.5 acres) of the wetland affected is covered by the SDEIS. What about the more than ten square miles of other wetlands that are indirectly impacted by the toxic minerals and water use by this open pit mine? Bogs and swamps are very difficult to restore or rebuild.	WET01, WET05
1981	The area has been classified as a 'High Biodiversity Significance' area by the Minnesota Biological Survey and the SDEIS considers the impacts to be insignificant which I find impossible to believe. How can they claim over a dozen species of plants or animals as insignificant?	VEG02
<b>Sender Name (Submission ID)</b> Pam Larson Nippolt (7181)		
535	I believe that the water sources in Minnesota, and the surrounding watershed, are being put at extreme risk.	WR111, WR115
536	There is no precedence for this being an effective approach and the long term maintenance suggested (500 years) is preposterous.	PD03
<b>Sender Name (Submission ID)</b> Pam Leland (16707)		
2063	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR071, WR107, WR108, WR195
2064	the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Pam Leland (16707)		
2065	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	MERC02, WR041, WR115, WR189
2066	•The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	WR010, WR012
2067	•The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
2068	•The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	HU03, WR020
2069	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	NEPA09, WR195
<b>Sender Name (Submission ID)</b> Pam McLaughlin (34221)		
13244	I have canoed in the Boundary Waters Wilderness Area, that whole area is so beautiful and absolutely irreplaceable. And the contamination of one area of these waterways will affect the whole region, not just that specific area in Minnesota.	WILD02, WR111
14025	We have got to start thinking of the larger picture when we make decisions and let the good of all living things for generations to come, guide our decisions, and not the desire for short term money gain.	SO01
<b>Sender Name (Submission ID)</b> Pamela Arnold (39439)		
7726	An alternative use for the proposed mining site has not been considered, including economic and environmental projects for an alternative use. The "NO BUILD" alternative should be given its due position among the considerations.	ALT06
7753	The long term consequences of any undisclosed potential for error, contamination to ground water, ambient air pollution, dredging peat bogs cannot be measured against the very few proposed economic benefits to the local economy.	SO01
7763	A comprehensive EIS should include a state-wide economic and environmental overlay, with an alternative scenario for comparison. As it stands, the SDEIS truly benefits the applicant. It does not fulfill our expectations for a complete picture including alternatives. Because the consequences could be so costly to the environment region-wide, the SDEIS should be challenged, and if no revisions are offered to support an alternative, it should be rejected in perpetuity.	ALT01, ALT06
13221	All we have is hope that the DNR and State of Minnesota will have the courage to reject this proposal, against local enthusiasm for it. And, using it's lobbying effort, find an economic alternative for this region, which clearly needs an economic boost.	SO02
<b>Sender Name (Submission ID)</b> Pamela M and Frederick J and Alexandra R Thompson (54691)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Pamela M and Frederick J and Alexandra R Thompson (54691)		
17819	"Jobs, jobs, jobs" is the hue and cry in favor of a copper-nickel mining boom. Environmentally and financially sustainable family businesses like ours are always wished for, but often not supported by policy. My family has spent a great deal of time, money, energy and education to start and maintain Giving Ground. We will be forced to close and move away in an atmosphere of mining noise, dust, heavy equipment on country roads, blasting and temporary population influx.	SO02
17820	Noone mentions the many long-term, sustainable economically viable over- the- longterm jobs, which will disappear, · coppe -nickel mining environment. Tourist lodges, resorts, dog-sled and skiing and other wilderness adventure firms, cannot hold against this onslaught of quick-buck, ·n-and-gone mmg	LU06
17822	What happens after in-and-then-gone mining operations? Planned bankruptcy, which is always built right into the lans of the mining companies.	FIN01
17824	Neither can potable water hold against such an amoral, if not outright immoral, corporate onslaught. Potable water is Minnesota's treasure. Th only water we have is that within our atmosphere's bubble. There is no more. Someone at the recent hearings asked, "Are we insane?" (to trade a possible 20 year mining boom for 500 years of drinking water??)	SO01, WR111
17825	The corporate owners of the minining companies will neve settle in our communities. They will come in by private plane an leave by private plane. The engineers will be brought in by the companies, under contract, and then they will leave. None ofthese mining companies have any long-term commitment to ANY of our communities in any way.	SO06
17827	Frank Ongaro says we should trust the environmental laws on the books, but what of all the recent lrain explosions, massive toxic storage tanks leaks into national waterways and drinking water reservoirs, coal ash avalanches? .. . . Companies don't care what happens to communities m t e long run because they don't live in any of them; the state and federal governments are already overburdened and can't possibly oversee carefully enough.	SO02
17828	Recycle copper and nickel and rare earths and so any other resources from the dumps and landfills we already have. The Chinese are mining our landfills for much of their resource needs.	NEPA06
17829	Leave the copper and nickel in the ground here until a time when technology makes mining them safer. They won't go anywhere in the meantime.	ALT16
<b>Sender Name (Submission ID)</b> Pamela Skaar (31784)		
13851	Water supply systems, personal and public, may be impacted, requiring more expense to process to meet regulatory standards.	WR041
<b>Sender Name (Submission ID)</b> Pamela Thinesen (14735)		
1747	I believe that the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for-- information that is necessary to decision-makers.	FIN01
1748	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
1749	I urge decision-makers to reject this risky proposal by PolyMet to mine sulfide ore in the headwaters of the St. Louis River. Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats. This trade-off is not worth the risk.	WI13

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Pamela Voigt (15616)		
15637	The NorthMet Supplement Draft Environmental Impact Statement (SDEIS) has a critical gap in describing and mitigating the impact of habitat loss on Alces Americanus, the moose. [As you revise the SDEIS, please] require PolyMet to mitigate the habitat loss for the moose caused by the NorthMet project.	WI02
15638	Despite being listed as a species of "Special Concern" by the State of Minnesota in 2013, the suspension of the 2013 moose hunting season, and a 50% decline in Minnesota's moose population since 2005, the SDEIS describes moose as a "regionally common wildlife species," and a "game species" (p. 5-635)... [As you revise the SDEIS, please] recognize the changed status of the moose as a species of "Special Concern"...	WI01
15639	despite the special significance of the moose to tribal members, there is no cumulative impacts analysis of the loss of moose habitat in the SDEIS. "Habitat fragmentation and loss" is recognized as a cause of the moose population decline, and the NorthMet project would add to existing habitat disruptions. The tribal cooperating agencies have noted this deficiency, but it has not been addressed in the SDEIS (Attachment 3, pp 45-46). As you revise the SDEIS, please include a cumulative impacts analysis that examines the impact on moose...	WI01, WI02
<b>Sender Name (Submission ID)</b> Pat Rogowski (47794)		
11610	I believe the mine should not be built as described. It is our job to protect irreplaceable wetlands and fresh water resources in the Lake Superior Basin for generations to come	WET24
14151	Please also deny the Clean Water Section 404 permit and require PolyMet to analyze alternatives that would reduce harm to wetlands and nationally and internationally important waters.	COE04
14153	Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality [including]: Underground mining, looking at the full ore deposit and PolyMet's real costs	ALT06
14155	Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality [including]: Putting a liner under the Category 1 waste rock stockpile;	ALT07, ALT10, ALT13
14157	Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality [including]: Placing all tailings on a new completely lined facility;	ALT10, ALT13
14158	Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality [including]: Returning the Category 1 waste rock to the West Pit to reclaim 500 wetland acres;	ALT03, ALT06
14159	Require the SDEIS to be redone to analyze alternatives that could avoid, minimize or mitigate impacts on Partridge River watershed wetlands and water quality [including]: Building the reverse osmosis on the mine site in year 1 to treat (up to standards) and discharge runoff and pit water on site to minimize impacts to wetlands.	ALT13
14160	Deny the PolyMet Section 404 permit unless all "compensation" mitigation for wetlands is provided within the Lake Superior Basin.	COE01
14161	Deny the PolyMet Section 404 permit, since the PolyMet SDEIS plan provides no mitigation for thousands of acres of foreseeable "indirect" wetlands losses.	COE01, COE02
14162	Deny the Section 404 permit for the PolyMet sulfide mine plan, since it would destroy irreplaceable wetlands, peatlands and wetlands functions.	COE03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Pat Rogowski (47794)		
14163	Reject the PolyMet SDEIS as inadequate due to the fact that no alternatives that could reduce water pollution and wetlands destruction are analyzed in the SDEIS.	ALT13
14164	Reject the PolyMet sulfide mine due to its unacceptable impacts on wetlands and water resources of national and international importance.	WET19, WR111, WR115
<b>Sender Name (Submission ID)</b> Pat.Burow (12076)		
68	I am concerned, not only for the quality of water to be preserved	WR115
1648	So, you really want to take a chance that our groundwater and surface water will be polluted because of sulfide mining in one of our most pristine areas in Minnesota and an area that attracts people from all over the world?	WR115
1649	I am concerned, not only for the quality of water to be preserved, but also for the towns, most particularly Ely. Have you visited Wiliston, North Dakota or Dickenson, North Dakota?	SO02
<b>Sender Name (Submission ID)</b> Patricia B Olson (54746)		
19118	I have to support the MN DNR, the US Army corp of Engineers, and the US Forest Service. Their SDEIS for Poly Met's proposed copper-nickel mine in northeastern MN appears to be well thought out and it's disbursement to the public through the hearings and educational material provided. I have every confidence that; should there be a problem, Science and Research will be able to fix it before it becomes a disaster!	PER34
<b>Sender Name (Submission ID)</b> Patricia B Penshorn (54821)		
18481	360 jobs for 20 years and then what? How about creating metal recycling facilities and hire people to work on recovering the metals we need?	SO02
<b>Sender Name (Submission ID)</b> Patricia Bacon (30188)		
10990	At a time when CA, NV and many other areas are experiencing droughts and water pollution, why would there even be any consideration to allow such a polluting industry to put this risk and probable inevitability of contamination of such a priceless gift as Lake Superior and the entire Great Lakes ecosystem over the welfare of 20% of the population of the U.S.A.?	WR111, WR195
<b>Sender Name (Submission ID)</b> patricia benson (15997)		
1121	On behalf of the moose ... NO to PolyMet. ... it is a simple proposition: Short-term (20 years) thinking vs. long-term action on behalf of future generations, human and non-human, the future of the watershed, the future of Mother Earth.	WI01
2022	Short-term (20 years) thinking vs. long-term action on behalf of future generations, human and non-human, the future of the watershed, the future of Mother Earth.	SO01
<b>Sender Name (Submission ID)</b> Patricia Donnelly (40157)		
6161	we will be paying for hundreds of years of cleanup when the use for copper may be replaced with another product in a few years, just like has happened to so many other products that we used to use	FIN08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Patricia Donnelly (40157)		
6162	Minnesotans have worked hard to preserve our natural resources and I don't want to see ll that work undone for a few hundred jobs.	SO01
<b>Sender Name (Submission ID)</b> Patricia Feld (16189)		
11523	Our unique environment is too precious and too vulnerable to put in jeopardy for short-range benefits.	SO01
<b>Sender Name (Submission ID)</b> patricia flynn (45595)		
11611	The wild rice paddies and the Native Americans are another reason not to proceed.	VEG04
15800	It sounds to me that PolyMet would come to Northern MN for approximately 20 years and put their profits from our minerals in a Swiss bank, and walk away, leaving behind up to approximately 500 years of destruction to our northern area.	SO01
15899	Twenty years of mining and 200 jobs at the mine aren't worth the devastation that will occur, at sometime, in the pristine area of MN where the mine will be located.	SO01
15900	NorthMet can file bankruptcy and be out of the picture and leave the potential clean up for all of us to pay for.	FIN01
<b>Sender Name (Submission ID)</b> Patricia Gunderson (7121)		
470	The SDEIS is inadequate; it does not provide any reassurance that this mining will not result in irreparable harm to the watery environment in our Arrowhead.	NEPA09
<b>Sender Name (Submission ID)</b> Patricia Hammel (44970)		
11159	Lake Superior is an exceptional freshwater resource of global importance for which we are responsible. The likelihood that the Polymet mine will result in sulfuric mine drainage, methylmercury pollution and asbestiform discharges into Lake Superior tributaries is an unacceptable risk.	WR111
11161	Polymet's prior environmental analysis was unacceptable to the EPA. The current SDEIS is also inadequate as it is based on unrealistic groundwater/hydrology models and assumptions about the capacity and integrity of tailings ponds.	WR057, WR058, WR086, WR087, WR088, WR089, WR093, WR095, WR096
11163	Mining is the primary source of mercury pollution in the Lake Superior region. The United States has both signed and ratified the Minimata Convention on mercury pollution pledging to limit new emissions of mercury and to clean up existing mercury sources. Allowing Polymet to obtain a mining permit without stringent safeguards to prevent mercury emissions violates our commitment to the Minimata convention.	PER11
11165	Last but not least the possible presence of asbestiform minerals in the mine area compels us to consider the health of the mine workers and local communities who, based on past experience, will bear the brunt of the release of asbestiform particles into the environment of the mine.	HU05
11166	Indigenous people living near the mine will be most heavily impacted because they live on their traditional lands and rely on wild rice and fish for food and cultural survival.	CU11
<b>Sender Name (Submission ID)</b> Patricia Harlan-Marks (20062)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Patricia Harlan-Marks (20062)		
1702	The newest DEIS provides no assurance that this mining can be done without irreparable harm to the watery environment in our Arrowhead.	WR195
1703	Mining companies routinely declare bankruptcy as the mine is exhausted, leaving the taxpayers to pick up the tab for attempts to clean up the environment.	FIN01
1704	I seriously doubt that the mining can be done without toxic pollutants poisoning our fish, killing our wild rice and contaminating our ground water.	AQ05, WR156
1705	The mine will impact over 4000 acres of prime wildlife habitat and impair wildlife movement through the area.	WI02, WI03
1706	Processing the ore would increase Minnesota's greenhouse gas emissions significantly.	AIR01
1707	Our State must depend on wise stewardship to protect the environment and ensure that projects which may yield short-term gain will not result in long-term, irreversible damage to our forests, our land, our waterways, and our environment.	SO01
14862	Claims that sulfide mines have operated without violating water standards are based on mines located in deserts or mines that were exempted from ordinary water quality standards.	WR023
14863	PolyMet is a junior mining company headquartered in Vancouver, Canada. It has never operated a mine before and is backed financially by the Swiss company Glencore Xstrata. Glencore has a record of massive tax evasion in third world countries. Additionally, Glencore has suffered dozens of fatalities and been subject to six-figure fines for environmental breaches – 2008-2010.	PD23
14864	Sulfide mining threatens our remaining stands of natural wild rice in the St. Louis River. The sulfate standard for wild rice is 10 mg/liter, a standard the waste water from the mine could not meet.	WR143, WR159, WR162
<b>Sender Name (Submission ID)</b> Patricia Hauser (7362)		
693	The current Supplemental Draft Environmental Impact Statement regarding PolyMet is inadequate. It provides no reassurance that this mining will not cause irreparable damage to our Minnesota waters for hundreds of years!	FIN08
825	leaking polluted water will get into the tributaries of the St. Louis River (thus threatening the wild rice) and eventually into Lake Superior! What about our fish and other aquatic life?	AQ05
<b>Sender Name (Submission ID)</b> Patricia Johnson (52277)		
10703	The mining industry does not have a good track record in taking care of environmental concerns. I am concerned about air and water pollution and what happens in the future after the fresh water and clean air are so damaged and that it is unsafe to use.	AIR11
10706	What happens when some unexpected event occurs to further contaminate the environment and the money Polymet originally sets aside runs out?	FIN05
10707	I understand the local citizens would like to see the employment opportunities come to their communities and that those jobs would enhance the local economies but the long term cost is just too high.	SO02
10708	I would like to see some other industry locate in northern Minnesota that could provide jobs for the residents there.	NEPA15

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Patricia L. Feld (16183)		
9769	if PolyMet NorthMet SDEIS is not around in 500 years, who will be cleaning up for that generation of Minnesotans?	FIN01
<b>Sender Name (Submission ID)</b> Patricia Markert (16791)		
1578	Are you sure that five hundred years is a proper window within which to return a forest to itself?	VEG03, VEG05
1579	Who would pay for the clean up once this company is no longer in business?How would you ensure the accountability of any owner of the property for such a long period?	FIN01
1580	How can you be sure that the ground water will not accelerate the flow of run off of contaminated water into rivers and lakes?	WR096, WR167
<b>Sender Name (Submission ID)</b> Patricia Noble-Olson (39554)		
13533	Protecting our water protects the very essence of life that allows all of us to be healthy, provides for the environment, and for our food supply. The pollution caused by this proposed mine is serious and cannot be ignored	WR195
<b>Sender Name (Submission ID)</b> Patricia Richard-Amato (43117)		
10247	Sulfate discharges in our wetlands could bring the levels of mercury in our fish up to dangerous levels. ... One in 10 babies born in our area already has unsafe levels of mercury in its blood (please see the report by the Minnesota Health Department).	MERC02
13033	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
16593	Hoyt Lakes itself could have its drinking water made unsafe to due to the mine waste piles proposed by PolyMet.	WR181
16594	Huge areas of habitat for our wildlife would be threatened.	WI02
16595	A full study of health effects on humans from mercury and asbestos-like fibers from rock at the mine site has not been done. Much of it could eventually leach into Lake Superior and into many of our rivers and streams.	HU01
16596	We don't know what the cost of treatment of polluted water will be and for how many hundreds of years.	FIN05
<b>Sender Name (Submission ID)</b> Patrick Anderson (15727)		
11425	The SDEIS is fundamentally flawed in that it does not provide any reasonable guidance as to the length (time) of the environmental impacts. Without such guidance and supporting documentation the SDEIS is incomplete. This issue is a core matter which must be addressed. Neglect of this issue in the SDEIS has lead to widespread public misunderstanding and confusion.	NEPA15
15269	In addition, there is no factual basis for the cost per year figures (\$3.9 t0 \$6 M) put forth by Polymet. This is a fundamental flaw since it deprives the public an opportunity to adequately and appropriately review the accuracy of those figures. This flaw along with the ambiguous calculations for length of water treatment make it impossible to determine adequate financial assurances. While financial assurances will also be part of the permitting process, the factual basis for those calculations should be determined during the EIS phase.	FIN05, FIN13

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Patrick Anderson (15727)

15270 In addition, there is no factual basis for the cost per year figures (\$3.9 to \$6 M) put forth by Polymet. This is a fundamental flaw since it deprives the public an opportunity to adequately and appropriately review the accuracy of those figures. This flaw along with the ambiguous calculations for length of water treatment make it impossible to determine adequate financial assurances. While financial assurances will also be part of the permitting process, the factual basis for those calculations should be determined during the EIS phase. FIN05, FIN13

**Sender Name (Submission ID)**    Patrick Byron (39917)

7474 I have real fears that beyond the destruction of the environment, the people of Minnesota will be left with a clean-up bill and/or legal issues that would NOT be in the best interest of our state. FIN10

7707 With a brother and sister-in-law having first hand knowledge of the mining related issues in the state of Montana and the HORRORS of corporate irresponsibility regarding water quality, I am unequivocally OPPOSED to this project. WR195

7709 Even with promised jobs and development, the remote chance of tainting waters in the BWCA is too much of a risk to take. SO01

7712 I have concerns about the data that exists on this project as well, in short, worst case scenarios have NOT been addressed. NEPA15

7715 I have real fears that beyond the destruction of the environment, the people of Minnesota will be left with a clean-up bill and/or legal issues that would NOT be in the best interest of our state. FIN10

14294 Even with promised jobs and development, the remote chance of tainting waters in the BWCA is too much of a risk to take. WR111

**Sender Name (Submission ID)**    Patrick Chase (30098)

13859 To create and leave a cleanup mess for the next ten generations is not right - simply not right. It is one thing to say we didn't know the side affects of asbestos or PCPs, but here we do know and there no way we can justify it. HU03

16331 ...the mining operation is to last twenty plus years and the reclamation period is hundreds of years. The persons involved in signing off will be long gone, legal issues of blame and cost will be in the courts for years. FIN01

16332 ...the recent experience of the DNR handling the clear violation of Lutzen Ski Resort pulling water from a trout stream demonstrates the DNR's conflict between preserving nature and economic realities. The DNR chose jobs over preserving the natural environment. We are at that same pivotal point. SO01

**Sender Name (Submission ID)**    Patrick Cutshall (22054)

3335 I have confidence in the state of Minnesota and Polymet that it will be mined in the right way for both job creation and the environment. If it is not mined here but somewhere else not only will those good paying jobs and the taxes go somewhere but the environment would actually be more polluted. SO10

3336 Companies that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands. PER34

**Sender Name (Submission ID)**    Patrick Dehart (15755)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Patrick Dehart (15755)		
17045	I am the father of 3 and would gladly sacrifice a few fish to feed my family for the next 20 years.	SO10
<b>Sender Name (Submission ID)</b> Patrick Drescich (15757)		
12077	In the impact study regarding the discharge into the Partridge River was underestimated.	WR165
12082	If the wastewater is so toxic it needs this treatment, the likelihood is that it will get into the environment prior to being treated.	WR090, WR128
17072	The wastewater would need to be treated for 300-500 years. The system to contain the water is likely to fail.	WR129
<b>Sender Name (Submission ID)</b> Patrick Gibbons (44064)		
10588	while the employment opportunities arising from sulfide mining may be attractive in the short-term, in the long term the damage done would far outweigh these advantages and destroy the natural beauty that the local tourism industry depends on.	SO01
14922	The Boundary Waters are a treasure not only for Minnesota but for the rest of the world, and anything that damages the environment in this area is a bad idea.	WILD02
<b>Sender Name (Submission ID)</b> Patrick Knight (42851)		
8569	PolyMet Northmet will destroy thousands of acres of wildlife habitat and wetlands. I believe that the short term gain for a select few is not worth the damage and disruption caused for numerous generations of humans, animals and plants to come. Money will always be available but the opportunities for these living beings to be healthy and enjoy their natural chosen habitat may not be.	SO01, WI02, WET24, WI13
8569	PolyMet Northmet will destroy thousands of acres of wildlife habitat and wetlands. I believe that the short term gain for a select few is not worth the damage and disruption caused for numerous generations of humans, animals and plants to come. Money will always be available but the opportunities for these living beings to be healthy and enjoy their natural chosen habitat may not be.	WET24, WI02, WI13
<b>Sender Name (Submission ID)</b> Patrick Mulloy (43991)		
9360	The project threatens St. Louis River Basin, Partridge River, aquatic organisms and wildlife, wild rice, wetlands, groundwater, and ultimately, Lake Superior.	AQ05
15648	The Polymet Draft Plan is in large part science fiction, based on assumptions long into the future that are unverifiable. The facility will require environmental stewardship long into the future - long past the projected 500 years of water treatment discussed in the EIS. No corporation has lasted that long and few governments have.	PD01
15649	In general, despite all precautions, these mines do not have a good track record. A review of the historical record suggests that catastrophic failure is the normal state of affairs and that in the end, the tax payers usually end up holding the bag.	FIN01
<b>Sender Name (Submission ID)</b> Patrick Murn (10698)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Patrick Murn (10698)		
10749	Copper-sulphide mining is way too contaminating to be considered in such a pristine and rare wilderness natural resource... There is just no way in good conscious I can recommend this type of mining in such a delicate and vulnerable ecosystem. Please don't destroy this wonderful national treasure by approving permits for such an environmental devastating type of hard rock mining.	WILD02
10750	Although we need and use the precious metals and we also need the jobs in the region, the environmental destruction that historically and inevitably happens every time this type of mining is performed is not worth the environmental cost.	SO01
10752	We all know that [mining] has and will destroy these precious lands and waters.	GEN03
<b>Sender Name (Submission ID)</b> Patrick Witherow (43692)		
11915	Destruction of the BWCAW due to manmade toxic sulfide would be an unforgivable crime against nature and Minnesota.	WILD02
11916	The past article in the Star newspaper that Ely is dying because of the lack of jobs has been strongly refuted by most of the residents who also feel a great loss will ensue if this mining goes through.	SO02
11917	I've been told that there has never been a copper mining operation anywhere that has not resulted in a disaster to the environment. Can't we find another alternative? Some "clean" industry to start up there instead?	NEPA01
11918	I've also been told that PolyMet is owned by a Swedish company that has destroyed thousands of acres of Swedish landscape with their mining efforts. And you want to trust a foreign company with the health of the Minnesota environment?	PD23
15100	Think about the jobs and tourism lost to the Ely area if the BWCAW becomes polluted, or worse.	SO02
15101	The past article in the Star newspaper that Ely is dying because of the lack of jobs has been strongly refuted by most of the residents who also feel a great loss will ensue if this mining goes through.	SO01
<b>Sender Name (Submission ID)</b> Patti Donaldson (16939)		
11022	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Patti Isaacs (9851)		
322	While we cannot ignore the need for employment in the region, I don't see how a twenty year supply of copper and nickel—and profit for a single company—balances five centuries of pollution of Minnesota's most precious resource, water.	SO01
<b>Sender Name (Submission ID)</b> Patti Schuman (38514)		
14676	It is evident from the extent of time spent on the PolyMet SDEIS process, the range of state, tribal and federal agency involvement and the nature of the SDEIS content that the PolyMet project has been studied thoroughly from front to back end by a diverse set of regulators to understand its planned operations, its potential impacts and the establishment of needed safeguards and mitigations.	NEPA16

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Patti Schuman (38514)		
14677	the SDEIS shows that the project can be built and operated in an environmentally safe manner. The technology exists to mine non-ferrous minerals in the right way and the state has years of experience regulating mining. As well, the quality work done on the SDEIS to identify potential impacts and alternatives for mitigation provides the foundation for proper permit development.	PER34
14678	Minnesota also has substantial and clear financial assurance rules that will further help to ensure permits have the proper financial backing as they are issued. Given that this is the first non-ferrous project to be permitted, I applaud the DNR's decision to seek outside input to assist its process of determining appropriate financial assurance for the Polymet Project.	FIN16, FIN17
14679	[Mining's] economic and employment presence draws a very highly educated and highly skilled work force and it supports the presence of high quality educational facilities, teachers, community leaders and other people and experiences in Northeastern Minnesota. ... Minnesota will benefit from mining's economic impact in terms of taxes and royalties and also the positive social and environmental impact of adding good jobs outside of the increasingly congested Metro area.	SO10
14680	The DEIS shows that we can competently take leadership and responsibility in Minnesota for regulating the production of non-ferrous minerals that all of us rely on to support our way of life	PER34
<b>Sender Name (Submission ID)</b> Patty Flynn (10722)		
12236	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Patty Lange (44858)		
8030	It has been brought to my attention that the maps outlining the drainage area around the proposed mine in the environmental study for the Polymet mine are incorrect.	EDIT01
8035	The fact that the incorrect maps outline the swamp with a dashed teal line on satellite maps with green backgrounds makes it extremely difficult to see. This discrepancy between the environmental impact statement maps and US government maps makes this environmental impact study inadequate.	EDIT01
<b>Sender Name (Submission ID)</b> Patty Mac (43471)		
15549	Despite their best laid plans; what would happen if a truck with sulfuric acid overturned near the water? What about the weather? Horrible tornadoes? Another winter like this one (or two or three)? What about fires? What about human error?	PD22, PD36
15550	If any of the things that happened at their Mapani mine happen here it would be devastating--environmental problems, health hazards, death of miners. And that mine is just a small part of the trail of environmental hazards, human hardship and financial costs it leaves in the local communities it does "business" in.	FIN10, HU04
15551	Not too mention the big gaping hole the mining leaves in the earth--have you seen the pictures of current copper mines? They are horrid!	LU04
15552	If it's jobs you are trying to bring to that area of the state--there has got to be a better way. There are new (and green) technologies being developed all of the time--invest your time, effort and money into one of these technologies that can benefit all groups, now and in the future.	SO06

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Patty Mac (43471)		
15553	who is paying for [other corporate environmental disasters] now -- in dollars, health and stress? Freedom Industries has filed chapter 11, so they will be minimizing their payouts--so it's not them; the weight of the crisis falls on the citizens, as it will when something happens at a copper mine in northern Minnesota.	FIN01
<b>Sender Name (Submission ID)</b> Patty Moses (43017)		
11501	The SDEIS should identify all the currently foreseeable cumulative effects of sulfide mining in Northern Minnesota [and the entire Great Lakes basin] , so that citizens have the opportunity to evaluate each proposal within the larger context of the overall eco-system.	CU18
<b>Sender Name (Submission ID)</b> Patty Moses and Tom Haller (43017)		
12191	A responsible plan must address how its systems will react to inevitable leaks, spills, accidents or other failures – indeed, the SDEIS seems foolhardy in its optimism and failure to plan for contingencies. ... To fully assess the environmental impact of the mine, contingency planning for unexpected failure must be addressed up front and not wait until well into the permitting process.	HAZ01, PD22, WR130
12204	The mine plan shows that millions of gallons of polluted water will seep off site, untreated, during the 20 years of operation. The SDEIS does not address how this untreated water will be kept from flowing into the Partridge and Embarrass Rivers, to the St. Louis River and into Lake Superior. Excessive rainfall and flooding will only exacerbate this unaddressed problem.	WR070, WR107, WR128, WR130, WR156
12216	PolyMet has not adequately explained how runoff and seepage from the permanent waste rock pile and tailings piles will be prevented. It proposes to store tailings in the former LTV tailings basin, on top of tailings that are already leaching contaminated water. Where membrane liners and geosynthetic covers are used, there is no evidence showing that they will last for centuries. How is it possible to assure sufficient maintenance and monitoring over such a period of time?	PD16, WR017, WR018, WR090, WR127
12221	PolyMet’s “base flow” underestimates the amount of water potentially flowing into the Partridge River a tributary of the St. Louis River, which flows into Lake Superior...The water model is based upon a single year’s data.... Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Accurate groundwater flow rates are critical to any realistic prediction of pollution and seepage from PolyMet’s mine pits and waste rock piles to the Partridge River. Baseflow must be recalculated after additional data is collected – PolyMet’s assumptions and promises are all based upon a seriously flawed model and therefore must be rejected.	WR003, WR047
12224	PolyMet assumes that the bedrock under the mine will not allow seepage and runoff to flow into groundwater and elsewhere. However, the bedrock in this area has multiple faults, fractures and fissures, through which water will flow to unknown locations... the effects of repeated blasting on underground rock formations, and these faults and fractures, is unknown—it is certainly possible that they will become larger or more numerous, changing the flow patterns of contaminated water. It is simply too risky to move forward with the SDEIS and PolyMet project without clear understanding of the underground faults and fractures that could transmit contaminated water to places unknown.	WR010, WR012, WR016, WR120
12235	PolyMet does not explain, because it cannot, how polluted water could be retracted. If there is leakage or a spill of contaminated, acidified water, it goes into the watershed, seeps into the groundwater, killing plants, fish, leaching metals and mercury into the environment and endangering human health. What are reclamation costs – can water that has been acidified even be reclaimed? The SDEIS does not adequately address these questions.	HU03, PD03, PD09, PD35, VEG06, WI04, WR128, WR130

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Patty Moses and Tom Haller (43017)	
12297	sulfates have a known role in facilitating mercury methylation, a toxic form of mercury that may cause brain and kidney damage and bio-behavioral disorders in humans. The mercury level in fish in the lakes and rivers in the area is already a health concern and yet this proposal would almost certainly increase the health and safety risks posed by mercury concentrations. The SDEIS should include detailed and cumulative impacts of potential mercury increases in fish as related to the NorthMet project and other nearby pollution sources, including mercury methylation as well as discharge and emissions.	MERC02, MERC10
12307	PolyMet should be required to provide financial assurances in the SDEIS before any permitting process gets underway. Considering that it is taxpayers who will bear the burden in the future for inadequate financial assurances, the public should be able to examine and comment on a financial assurance plan.	FIN10, FIN13
12459	The boom-and-bust cycle of most mining means any economic improvement will be short-lived.. Construction is ...expected to “marginally reduce the unemployment rate” in the study area...many of the more highly skilled and technical jobs will most certainly go to people who come to the area temporarily and send their incomes back to their permanent residences. Upon closure of the mining operations, far fewer people would be employed, the remaining jobs being in closure and reclamation activities. ...In the end, relatively few jobs, created for a short period of time, is certainly not worth the massive risk to the ecosystem of the St. Louis River watershed and Lake Superior.	SO02
12463	While acknowledging that an indirect effect on tourism and recreation might occur due to noise, dust, water pollution and other disturbance, the SDEIS does not examine or estimate the loss of recreation and tourism-related jobs in the area or examine the effects of the loss of those jobs. The displacement of other economic activity, including jobs and income related to hunting, fishing, eco-tourism, outdoor recreation, and the destruction of habitat for many species is ignored. Of course, contamination of the waterways over time will deeply impact the tourism industry, property values. ... Before the process moves forward, an entirely new analysis of the economic impact of PolyMet’s proposal in the context of both short-and long-term environmental, economic, and fiscal impacts must be undertaken.	SO04
12550	Sulfate pollution is detrimental to sustaining the growth of wild rice so important to Minnesota Tribal communities and other Minnesotans. ...PolyMet claims that it can meet the current sulfate standards, but its promise does not address the untreated, contaminated water that will seep or flow from the sites...The SDEIS is inadequate because it does not address the sulfate accumulation from untreated contaminated water... PolyMet’s assertion that it will meet current sulfate standards assumes that all the engineering controls, including the seepage capture system, the cap and liner system, the discharge controls, as well as the wastewater treatment system will all function perfectly for hundreds of years.	VEG04, WR128, WR156, WR157, WR160, WR162
12554	The SDEIS ...ignores the potential cumulative environmental impacts of current mining activity, new exploration and potential mining and processing throughout the region. Rather, it restricts the cumulative effects assessment area (CEAA) to the Embarrass and Partridge River watersheds, and does not include the St. Louis River or Lake Superior.	CU01, CU02
16557	the proposed solutions to handling toxic contaminants have not been tested or proven to protect water quality, human health and wildlife. Considering the extreme risks, PolyMet’s projections are inadequate both in the protection of water quality initially and in the proposed remediation. Once sulfuric acid is released, the damage is done.	WR023, WR115, WR141, WR143
16559	While there are scattered comments throughout the SDEIS concerning potential effects on human health, the document is largely silent on this most profound danger of the proposed mine.	HU01
16579	The SDEIS considers only the PolyMet proposal, not the other sulfide mining exploration efforts already underway in Northern Minnesota in anticipation of developing mines. It ignores the potential cumulative environmental impacts of current mining activity, new exploration and potential mining and processing throughout the region. Rather, it restricts the cumulative effects assessment area (CEAA) to the Embarrass and Partridge River watersheds, and does not even include the St. Louis River or Lake Superior.	CU01, CU02, PER35

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Patty Moses and Tom Haller (43017)	
16799	Minnesota Statutes Section 116D.04, subd. 6, provides in part: "No state action ... shall be allowed, nor shall any permit ... be granted, where such action or permit ... is likely to cause pollution, impairment, or destruction of the air, water, land, ... so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment or destruction. Economic considerations alone shall not justify such conduct." ... I submit that the SDEIS falls far short from meeting the above standards and permitting should not go forward.	PER35
16807	The SDEIS states that for 45 to 2000 years after closure of the mine, pollutants will be discharged into the Partridge River and exceed water quality standards for nickel, sulfate, cobalt, copper and mercury. The SDEIS acknowledges that rock liners may fail to contain contaminated drainage and liners may degrade with contaminated seepage expected to exceed standards for aluminum, antimony, arsenic, fluoride, iron, manganese, sulfate, dioxin, and perhaps beryllium and thallium. Aluminum may exceed water quality standards for 500 years. Concentration of such toxins in fish that can be eaten by humans presents major implications for human health.	HU03, WR107, WR127
16811	Given the projected pollution with these human toxins and the myriad of uncertainties surrounding long- term management of environmental pollution over hundreds of years, the SDEIS is highly deficient on the risks to public health. Before proceeding with the SDEIS, the lead agencies should consult with experts such as the Institute of Medicine, U.S. EPA, American Public Health Association, and other health science - based organizations to examine the implications of sulfide mining on human health, safety and well-being.	HU01
16814	Minnesotans should be absolutely assured that sufficient money has been set aside up front to cover all the costs of remediating the damage, or better yet, retracting it. The current SDEIS does not provide adequate information on 1) the reasonably anticipated costs of foreseeable problems, 2) the costs of currently unforeseen events, and 3) the duration of remediation efforts. Much more information is needed before granting any permission for mining interests to proceed.	FIN05
16815	Among factors that must be addressed are: •The costs of contingency plans, for foreseeable events and for the worst-case scenarios. These include the costs of monitoring to immediately identify leaks, spills, breaks, etc.	FIN05, FIN11
16817	Among factors that must be addressed are: •The cost of financial assurance to protect Minnesotans if PolyMet/Glencore and their investment backers go out of business or run into financial problems and cannot provide additional resources, as has happened repeatedly in the western United States.	FIN05
16818	Among factors that must be addressed are: •The actual costs of monitoring, maintaining, and replacing treatment equipment over many decades or even centuries.	FIN05, FIN11
16819	Among factors that must be addressed are: •The costs of long-term maintenance and management of wetland mitigation sites in addition to the mine and plant sites.	FIN05, FIN11
16820	Among factors that must be addressed are: •The costs of retracting damage. These costs are not addressed in the SDEIS. No one has explained how damage can be retracted. The SDEIS must include the details of how the contaminated water that seeps or spills will be neutralized before it causes damage to flora and fauna and leaches heavy metals including mercury into the watershed.	FIN05
16821	Lead agencies need to restore the public comment period before proceeding further with the review process. PolyMet's estimate of closure costs of \$200 million and annual maintenance costs of \$6 million are far lower than estimates of the Grand Portage Band of Ojibway that concluded the set-aside for financial assurance at the outset should be approximately \$90.5 billion. Such glaring discrepancies must be reconciled and public comment would help inform the issues.	FIN05, FIN13

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Patty Moses and Tom Haller (43017)		
16822	The Weeks Act now protects the 6,700 acres in the Superior National Forest from strip mining. The exchange would take this land out from under the protection of the Weeks Act. The only reason for the land exchange is to remove it from Superior National Forest and federal protection from mining. I oppose this land exchange—it will take protected land and submit it to devastating strip mining which is absolutely contrary to the federal law’s intent and longstanding public policy of this nation.	LAN02
16823	While the SDEIS acknowledges that mining activities typically follow a boom-bust cycle, it does not analyze the aftermath of the “bust,” including the impact of the loss of jobs on the economy. ...The SDEIS simply says that unemployment will increase, and goes no further. ...The SDEIS should thoroughly assess its impact, to present a complete picture of PolyMet’s environmental impact.	SO02
16827	Will viability of the [wild rice] plants be impaired? Will the wild rice be safe for human consumption? What is the evidence? The lead agencies should require more information and a detailed analysis.	VEG04
<b>Sender Name (Submission ID)</b> Patty Murn (36627)		
3816	Glencore has a significant financial stake in the company, and has an exclusive agreement to sell the mine’s metals on the global commodities market.	SO06
14270	Polymet has told you that the water will be polluted for 200-500 years. What kind of a statement is that? And what kind of a steward of natural resources would qualify it with consideration?	WR195
14271	What about the St. Lawrence river, the wild ricing that will disappear, and the pollution of Lake Superior. The Great Lakes comprise 1/5 of the worlds fresh water.	VEG04, VEG06, WR156
<b>Sender Name (Submission ID)</b> Patty O'keefe (47692)		
12349	Why in the world are we doing this when only 25% of copper nickel products are recycled?Why should we risk polluting water at a time when climate change is causing the largest amount of global water scarcity since the existence of humans.	NEPA06
12511	There's no reason why we should be risking polluting water at a time when climate change is causing the largest amount of global water scarcity since the existence of humans.	WR180
<b>Sender Name (Submission ID)</b> Paul J. Wotzka (43312)		
11794	The main reason given for establishment of the Superior National Forest and the purchase of Federal lands through the Weeks Act was to protect the headwaters of the St. Louis River. The proposed land exchange and destruction of wetlands in these headwaters is a violation of the intended purpose of these Federal lands.	LAN02
11797	The ecological quality of the stream and wetland complex that would be impacted ... is very high and deserves the highest level of wetland mitigation. The proposed mitigation does not compensate for the loss of wetland functions and values in these headwaters.	WET05
11803	The potential toxic effects of sulfur and heavy metals upon wetland vegetation from fugitive dust and precipitation are not adequately considered or evaluated.	WET11
<b>Sender Name (Submission ID)</b> Paul and Liz Buettner (9803)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Paul and Liz Buettner (9803)		
298	It is only reasonable to require that Polymet provide adequate financial assurance prior to the beginning of any permitting process.	FIN13
301	Permitting cannot proceed based on inaccurate predictions of water quality.	PER09
302	The cumulative effect of blasting ore, or vibration, has not been mentioned in the SDEIS, or even considered.	N04
304	The impacts of multiple envisioned future mining ventures should be expected to have a cumulative effect on the health of the sensitive ecosystems comprising the overall environment of northeastern Minnesota. This larger context must be an important consideration affecting the granting of any permits for Polymet's proposed action.	CU04
307	It is not reasonable to believe such accidents or unforeseen negative impacts cannot occur in connection with Polymet's proposed action.	PD01
308	Possible benefits to local, state, and national economies, as well as potential damages to the sensitive ecosystem within which this venture is proposed to occur, should be understood as considerations secondary to Polymet's primary interest.	SO01
309	Any assurances given either about future economic benefits or about limiting, preventing, or repairing future environmental damages can only be estimated, not proven.	PD25
310	I believe a choice must be made between any sulfide mining project and the health of the environment upon which we depend for the quality of our lives and the welfare of our local economies.	PD01
<b>Sender Name (Submission ID)</b> Paul Arhur Fleming (54531)		
19053	This sulfide mining activity does irreparable damage to the water, wildlife and people living in the vicinity and outreaching areas. It always comes down to the bottom line. Making wealthy people wealthier, and besides they won't have to live here.	SO01
<b>Sender Name (Submission ID)</b> Paul Bauer (43586)		
12306	I have full confidence that the Minnesota DNR, the U.S. Army Corp of Engineers, the U.S. Forest Service and all other involved agencies can, and will, provide the needed oversight and regulation to allow safe, successful mining of the NorthMet Mining Project.	NEPA16
15130	We need the minerals. We need the jobs. And, we need the project to be done correctly.	SO10
<b>Sender Name (Submission ID)</b> Paul Benwell (4514)		
1835	I have reviewed the SDEIS and am confident that everything has been addressed to the best of everyone's ability and that the permitting process should take place	PER34
9888	I have followed Polymet Mining for a few years and after visiting the site and listening to and questioning management I am very confident in their ability to move forward in a safe and secure manner.	NEPA16
<b>Sender Name (Submission ID)</b> Paul Doffing (45180)		
8772	The Environmental Impact Statement is deficient in that it inaccurately portrays the effects of the mine/ watershed on the 100 Miles Swamp Area.	WET19

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Paul Doffing (45180)		
8773	Maximizing profits at the cost of human health and the environment is a short sighted, self serving choice	SO01
8775	If Polymet cannot give financial and scientific assurance that our environment will not be damaged by their mine, they should not be allowed to mine.	FIN05
<b>Sender Name (Submission ID)</b> Paul Erdmann (41883)		
2131	Even if PolyMet “mitigates” or “replaces” wetlands that are destroyed or damaged by this proposed mining activity at a ratio of 1 acre wetland loss to 1.5 acres of wetland “creation,” studies and experience have shown that these newly created wetlands have only a portion of the biological and water quality value of the natural wetlands. The state of Minnesota, federal agencies, and local government units that regulate these activities do not have adequate staff, funding, or time to ensure that these mitigation wetlands provide as much value as the natural wetlands that took thousands of years to evolve.	COE01
2361	The SDEIS does not adequately address many of the environmental ramifications that would occur if the mine is approved, in a critical area of our country’s National Forest- the headwaters of a watershed that many people are working to address environmental damage that has already taken place.	CU11
16506	The SDEIS inadequately characterizes the wetlands loss and proposes inadequate mitigation measures.	WET01, WET04, WET07
<b>Sender Name (Submission ID)</b> Paul F. Tanghe (11242)		
727	Any potential benefits of this project, which will be largely captured by the PolyMet corporation, simply do not justify potential environmental impacts whose cost will be born by the residents of Minnesota as well as the surrounding US and Canadian regions.	SO01
<b>Sender Name (Submission ID)</b> Paul Finsness (35444)		
13251	There is no guarantee that the PolyMet mine will be open for its projected twenty year life-span. The taxpayers of Minnesota will be required to protect the watershed for 500 years for a mine project that may not be viable for more than 5 years. Again, look to Arizona for the effect of fluctuating copper prices on the viability of copper mines controlled by foreign owners.	FIN08, FIN10
<b>Sender Name (Submission ID)</b> Paul Forsman (57339)		
18440	everybody says, "Oh, save the wetlands," and it is okay for to save the wetlands, and, "The mining company is going to pay, it doesn't matter," but you are going to have to think about the big picture though. All of the extra carbon that was burned to satisfy a wetland that really wouldn't have been more affected anyways.	WET13
<b>Sender Name (Submission ID)</b> Paul G Jorgensen (54522)		
18733	Are the citizens of Minnesota going to pay for cleanup after Polymet has left the state?	FIN01, FIN10
18734	When there is an accident, how is it going to be taken care of?	PD22
<b>Sender Name (Submission ID)</b> Paul Harman (23436)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)**    Paul Harman (23436)

13977 Do not let ANY company or organization pollute the land, water, or air of the Boundary Waters Wilderness Canoe Area.    WI13

**Sender Name (Submission ID)**    Paul Johnson (46930)

10830 The Canadian company and their Swiss financiers have a poor environmental record.    LU06

10833 After the mine closes the site may well have to be monitored for generations until the threat of pollution will have passed.    PD01

16374 Recreational land is highly valued in Minnesota. Because of high natural runoff in the area the risk of major pollution would be high. If it happened I believe it is unlikely that any cleanup funds would be adequate to repair the damage.    LU06

**Sender Name (Submission ID)**    Paul Laasko (3787)

12348 My family living in the Ely area over the years depended on the water and forest not just for recreation but for food on their table. When this area is disposed of for short term profit, that wonderful resource resource will be gone as well as the money.    SO01

13912 The enormous cost of (a doubtful) restoration and restitution will be borne by children not yet born for many generations.    SO01

**Sender Name (Submission ID)**    Paul Magee (42011)

2062 We should never authorize a project that will require several generations of monitoring and clean-up.    FIN11

**Sender Name (Submission ID)**    Paul Martz (13948)

1730 I do not believe for one second that the mining company will be around for the 200 years they say the waste water will need to be treated    WR037

**Sender Name (Submission ID)**    Paul Nasvik (42898)

9235 Over 44,000,000 million tons of this waste would be considered toxic waste and another 6,200,000 volumetric tons would be considered highly toxic waste. All of this material, when exposed to air and humidity, will release toxic acids, lead, mercury, asbestos and other heavy metals.    HAZ03

18396 If any of this material [wasterock] leaches, seeps, or is allowed to be windblown to surrounding streams and rivers, degradation of the environment will occur.    WR107, WR126

**Sender Name (Submission ID)**    Paul Neimann (46135)

8086 It is difficult to understand why we would put at risk our unique natural environment to create wealth for foreign corporations who will soon leave the state leaving the citizens with a permanent and ongoing mess to clean up.    PD01

16216 Every effort should be made to support a business environment which will create jobs, but not at the expense of our priceless natural inheritance.    SO01

**Sender Name (Submission ID)**    Paul Nelson (41962)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Nelson (41962)	
2152	The PolyMet NorthMet SDEIS differs in its estimates of federal and state and local taxes without explanation of what accounts for this difference. The 2010 NorthMet DEIS stated: "IMPLAN modeling estimates that...during a typical year of operation the federal government would receive \$17.3 million and the state and local governments would receive \$14.5 million in taxes from the operation of the Project, excluding net proceeds tax" (DEIS 4.10-19). But the 2013 SDEIS says: "IMPLAN modeling estimates that, during a typical year of operation, the federal government would receive approximately \$30 million, and the state and local governments would receive approximately \$39 million in taxes from the operation of the NorthMet Project Proposed Action" (5-503).	SO04
2153	Table 5.2.10-3 in the SDEIS, showing estimated taxes paid for 2011 had the project been in operations, projects state taxes of \$15.6 million and federal taxes of \$64 million for 2011, a number far larger than the \$30 million described from the IMPLAN model. These figures lack explanation and rely on estimates provided by PolyMet without any verification. These estimates have also changed dramatically from the draft versions of the SDEIS circulated earlier in 2013 without any explanation. In the Track Changes Version 2.0 of the PSDEIS, Table 5.2.10-3 shows annual estimates of \$3.12 million of state taxes and \$12.8 million in federal taxes, increased by 500% to \$15.6 million and \$64 million. No explanation of the change is provided, and no source provided other than personal communication with PolyMet.	SO04
2155	the SDEIS [should be revised] to provide details of the calculations used to arrive at the estimated taxes paid and provide independent confirmation of these estimates from state and federal agencies	SO04
2156	the SDEIS [should be revised] to provide consistent numbers in estimated taxes across all sections of the document or explanations of the differences in the estimates.	SO04
5061	As a Minnesotan, I regularly travel to the Boundary Waters and northern Minnesota for camping, fishing, and outdoor activities. It would be a terribly short-sighted plan to risk one of the only truly natural environments that Minnesota has left for the sake of a few hundred jobs.	SO01
5064	To think of potentially ruining an environment, or at least making it a place that requires constant clean-up, for the next 500 years so that a business can make a profit is not a responsible use of our state's resources.	SO01
5065	[The PolyMet mine] would establish a dangerous precedent of allowing new mining interests into Minnesota nature.	CU04
7606	We as a state are not in a good position to trust that Polymet and its associates will be able to provide us with the environmental and financial assurances that we absolutely need to have before a permit to Mine is granted.	PER03
7619	Saying that this will be the first copper sulfide mine that won't contaminate the watershed and pollute the air is unacceptable.	AIR11
7622	There is little in this for the state of Minnesota or its workforce... it is very likely that many of the jobs created wouldn't be filled by locals.	SO06
7625	I think that they will not be able to guarantee 200-500 years of financing for monitoring and treating the water at both the plant and mine sites.	FIN01
7634	The only thing I would consider guaranteed by them as that they will maximize profits for their shareholders...Jobs will be kept at an absolute minimum.	SO06
7636	I have yet to see an economic impact statement that wasn't created by the company itself in a best case scenario sensibility.	SO02
7641	The PolyMet mine plan is riddled with problems that must be fixed: PolyMet would destroy thousands of acres of habitat used by threatened moose and lynx	WI02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Paul Nelson (41962)		
7642	The PolyMet mine plan is riddled with problems that must be fixed: PolyMet’s mine plan lacks analysis of human health impacts from mercury and asbestos-like fibers	HU01
7643	The PolyMet mine plan is riddled with problems that must be fixed: PolyMet’s studies contain inaccurate water data that need to be corrected	WR189
7645	Right now it's not worth it. We need absolute guarantees that they will finance and clean up the mess that this WILL create.	FIN01
9389	There is little in this [project] for the state of Minnesota or its workforce. I know people on the range need jobs but this will not change the economy on the range based on the number of jobs it would create. This is also not a typical range project so it is very likely that many of the jobs created wouldn't be filled by locals.	SO02
9392	It is well known that Polymet has never operated a mine before but their largest shareholder Glencore has with a very bad history of contaminating the communities that it has mined. I think that they will not be able to guarantee 200-500 years of financing for monitoring and treating the water at both the plant and mine sites	FIN01
9394	PolyMet would destroy thousands of acres of habitat used by threatened moose and lynx.	WI02
9395	PolyMet's mine plan lacks analysis of human health impacts from mercury and asbestos-like fibers.	HU01
9396	PolyMet's studies contain inaccurate water data that need to be corrected.	WR003, WR086, WR091, WR189
16091	We as a state are not in a good position to trust that Polymet and its associates will be able to provide us with the environmental and financial assurances that we absolutely need to have before a permit to Mine is granted.	PER35
16230	The PolyMet mine plan is riddled with problems that must be fixed..PolyMet would require hundreds of years of expensive treatment of polluted water	WR115
16832	However, knowing that 500 years of water treatment will be needed makes [PolyMet's] proposal almost laughable.	WR195
<b>Sender Name (Submission ID)</b> Paul Neslund (9715)		
285	The jobs created, and the product produced are both critical to the area and to the world.	SO10
<b>Sender Name (Submission ID)</b> Paul R Iversen (54799)		
18142	there is absolutely no way Polymet or any other mining company can guarantee the physical structure of sulfide pollution control for hundred of years, or guarantee their corporate culture (and human nature) to keep pollution controls at 100% effectiveness for hundreds of years. The Elk River chemical spill in West Virginia and Duke Energys coal ash spill in North Carolinaare perfect examples of of what can happen years after physical structures begin to deteriorate and corporate culture refuses to embrace environmental stewardship.	GEN03
<b>Sender Name (Submission ID)</b> Paul Roth (7046)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Paul Roth (7046)		
453	Preserving and protecting Minnesota’s natural environment is more important than the profits of a mining company.	SO01
454	Clearly, no one knows what will need to be done, and how many hundreds of years it will need to be done, to keep the witch’s brew of effluent from poisoning water, soil, and air.	PD01
673	The mining company will cease to exist long before the site loses toxicity and the ability to ruin the environment. The state of Minnesota will be left with an environmental train wreck, and the citizens of the state will have no choice but to pay for containment and remediation.	FIN01
<b>Sender Name (Submission ID)</b> Paul Sanford (22073)		
3341	The sooner we get the Polymet project going the sooner we are not dependent on foreign powers for our badly needed copper used In clean energy production.	NEPA05
<b>Sender Name (Submission ID)</b> Paul Schlaefel (39726)		
7009	It is my opinion that mining in this area with present technology is risky to the water quality. Clean water is the states most important asset and we need to be assured that future generations can drink it safely.	WR128, WR195
7010	More work needs to be done on the environmental impact of storing poluted waste safely in this fragile area.	PD15
14888	Like any big corporation, Polymet's primary concern is profit for it's shareholders.	SO02
<b>Sender Name (Submission ID)</b> Paul Schurke (18075)		
3187	Most prominently, I feel, are the graphs and tables, particularly those, if I might cite from the report, Table 4.2.2-9 and others that compare the flow into Partridge River with which they have projected through their computer modeling and it is fatally flawed and the DNR has acknowledged that and it's a significant serious error and how well this SDEIS is going to give us a picture of what's can become of the water quality in these lakes and streams in the future to come.	WR003, WR086, WR091
3188	Grand Portage Band and the Bois Forte Band, have been telling the scientists working on this project for years that the groundwater data on the flowage of the Partridge River is seriously flawed, that they're off.	WR003, WR086, WR091
16619	the PolyMet SDEIS is inadequate and... this destructive project must not proceed as currently proposed because of the 1) widespread and severe environmental damage inherent in the PolyMet project and 2) the failure of the SDEIS to include a cost/benefit analysis and specific provisions regarding amounts and sources of financial assurance.	SO01
16623	The SDEIS contains no cost/benefit analysis of the PolyMet mine.	SO01
16626	The SDEIS does not say whether wages paid to mine employees will stay inMinnesota or whether they will go primarily to transient employees who will spend only a fraction of their income in Minnesota.	SO06
16628	The SDEIS does not discuss the impact of the loss of jobs when the price of copper declines and mining becomes unprofitable, although it acknowledges that such job loss is inevitable: “Mining-related employment is volatileand fluctuates from year to year due to the market price of commodities being extracted.” SDEIS, 4-325—4-326	SO02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Paul Schurke (18075)	
16633	The SDEIS fails to assess the cost of unemployment benefits and other social services, increased crime rates, and other societal costs associated with volatility in employment.	SO04
16638	The model used to calculate the alleged economic benefits of the mine does not take into account the costs to the environment; the displacement of other economic activity, including among other things tribal rights to hunt, fish, and gather under the 1854 Treaty; the infrastructure, government, and social service costs resulting from the mining; and the consequences of the unpredictable influx and outflow of mine employees.	SO01
16639	What would be the costs for public infrastructure, lost opportunities to engage in other economic activities incompatible with mining, depressed real estate values, lost recreational opportunities, social upheaval, and perpetual clean-up that the public would be required to bear.	SO01
16646	PolyMet admits that water pollution by sulfuric acid and heavy metals will last for at least 500 years.	WR037
16647	Not all of the polluted water will be captured for treatment. Annually, 11 million gallons of polluted seepage from the tailings basin will enter groundwater without being treated. -The SDEIS fails to adequately assess the long-term impacts of the pollution resulting from the release of this untreated water.	WR070
16648	The computer model used by PolyMet may understate the actual[water] pollution impact, because it has been shown to be inaccurate in representing current conditions for water quality around the mine site.	WR049
16649	The SDEIS fails to provide contingency plans for the kinds of failures and mishaps that routinely occur in mining operations. During operations, at least 6-2 million gallons of polluted water would need to be treated every day. Pipeline spills, accidental releases, failure of water collection and treatment infrastructure, and tailings basins failures are virtual certainties. And because the provisions regarding financial assurance are so plainly inadequate... the SDEIS does not tell us how the costs of responding to such failures will be covered.	FIN05
16651	The SDEIS provides no details on the impacts to water quality, wildlife, or human health if the water treatment system ceases operations at some time during the 500+ years during which the polluted water is being discharged.	HU03, WI04
16652	The Mine Plan Requires an Absurd and Unachievable Level of Monitoring and Maintenance for Many Centuries -Minnesota Rules 6132-3200 requires that the site must be maintenance-free at closure, but the PolyMet mining plan calls for at least 500 years of active water treatment.	PER04
16653	526 acres of land, covered by more than 167 million tons of waste rock, would be covered by a plastic sheet and surrounded by a system that would supposedly collect contaminated seepage. All would require monitoring and maintenance constantly for hundreds of years to fix leaks, repair perforations, and remove deep-rooted plants.	PD01
16663	A mining pit “lake” would require pumping to prevent the toxic brew of acid and heavy metals from spilling into the nearby Partridge River, and a tailings basin pond would require pumping to prevent spillage into tributaries of the Embarrass River.	WR037, WR131
16666	The polluted water collection system, which includes miles of pipes, would require monitoring and maintenance for centuries.	WR131
16668	The SDEIS contains no credible information about the actual cost of monitoring, maintaining, and replacing the equipment needed to treat polluted water for 500 years or more. It provides no details about the nature or guarantees of a financial assurance scheme that would remain viable for 500 years, yet it does acknowledge, disturbingly, the possibility of events such as “unanticipated liabilities” and “failure or limitations on the ability of third parties to pay.” It does not attempt to explain how a corporate entity could realistically be held accountable over such an absurdly long period of time.	FIN01, FIN05, FIN11

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Paul Schurke (18075)		
16669	even though the SDEIS admits that water pollution will last for a minimum of 500 years, its financial assurance section is an exercise in generalities. The actual cost of water treatment, monitoring, maintenance, repair, and reclamation is completely unknowable.	FIN01, FIN05, FIN11
16670	The SDEIS says that PolyMet estimates initial closure costs of up to \$200 million, with post-closure monitoring and maintenance costs of up to \$6 million annually. The Grand Portage Band of Ojibway concluded that PolyMet's numbers are vastly below the actual amounts required. The Grand Portage Band calculates that the minimum amount that should be set aside for financial assurance at the outset, assuming a 3% return on the amount, is \$90-5 billion.	FIN05
<b>Sender Name (Submission ID)</b> Paul Stolen (54517)		
19189	The Final EIS should contain content that at least attempts to reassure both skeptics and projects proponents	NEPA15
19191	methodological defects in the SDEIS: Inconsistencies in clearly describing potential impacts should there be failure of controls. Many of the conclusions about potential impacts (or lack thereof) are based on esoteric models that conclude there will be no impact. The SDEIS authors seem to have then decided there is no need to describe what kind of impact is being avoided.	NEPA09
19192	methodological defects in the SDEIS: The SDEIS replaces proper impact analysis with a narrowed analysis geared to existing MPCA, COE, and DNR permit authorities and post-construction monitoring. It is proper and necessary to include detailed analysis of permit topics in the SDEIS. What is missing from this SDEIS, however, is adequate analysis of impacts not covered by permits.	NEPA05
19193	The use of ambient mercury/methyl mercury levels, fish mercury content, and fish consumption advisories as the main indicator of mercury impacts and mitigation of impacts rather than analyzing ecosystem/watershed factors potentially affected by the project.	MERC04
19195	SDEIS section on indirect impacts to wetlands narrows the wetland analysis to topics related to COE and DNR permitting authority over wetlands. This is spite of the overwhelming evidence that wetland disturbance can cause high mobilization of both new and legacy mercury into methyl mercury from wetlands. Some of the disturbance factors used in the wetland analysis are the very ones that can cause such mobilization, making the absence of an analysis of mercury methylation in the wetlands even more puzzling.	MERC09, MERC23
19196	There is a narrow focus on the influence of sulfate deposition on increases in methyl mercury mobilization rather than other factors such as water level and ecosystem effects. Such deposition can be controlled to some extent-within Minnesota that is-by MPCA permitting authority. This is another result of the narrow focus on permitting issues.	MERC08
19198	The SDEIS thus sets a poor example of how to address such a mine review. The narrow focus on permit topics hampers public access to key information in the review. Permit decisions are highly technical decisions based on models, deep technical knowledge, and so forth. The result is a public review document whose substantive content is nearly inaccessible.	NEPA07
19199	Reliance on post-construction monitoring to this degree has major problems.	PD01
19200	The Polymet SDEIS, with profound implications for its content, doesn't do an analysis of impacts for the 200+ time period. Instead, it says the project will be monitored and actions taken should impacts be detected. As mentioned, this method of "kicking the can down the road" greatly detracts from the proper EIS content, and may have legal problems.	PD01
19201	The very nature of the North Met project, and its location in a very wet and sensitive environment, necessitates description of potential impacts during at least the 200 year period. A monitoring approach might be more defensible in a dry environment, but it raises enormous red flags in a wet environment.	PD01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Stolen (54517)	
19202	The use of modelling for highly important aspects of the impact analysis-such as those that can influence whether a project permit is granted-needs to be thoroughly explained in the final SEIS.	PD03
19203	The SDEIS should not rely on complex models that remain opaque to the public. There are major adverse consequences to public trust when this is the case.	NEPA07
19204	Inclusion of clear descriptions of all potential impacts of a mine such as this, based on what has happened elsewhere. This need is based on the fact that controls could fail, and is necessary for transparency for the public. These discussions are needed even though conclusions may be reached that the impacts are unlikely to happen.	NEPA09
19205	Inclusion of a description of whether failures of project controls can be controlled, and at least a rough estimate of costs of control.	FIN05
19206	[Include] A clear discussion of the degradation of modelled outcomes as time passes.	NEPA06
19207	[Include] A clear discussion of model assumptions, including what happens to conclusions if important assumptions are changed.	NEPA06
19208	An explanation of the factors that would pertain that would result in a permit denial, given the further information requested for permitting decisions. This description is needed, given the very high level of public and political interest in this project, and the need to transparency.	NEPA06
19209	[Include details of the following in the SDEIS:] Toxicity of Mercury. Mercury-and methyl mercury-is a very dangerous and toxic material that has caused and is causing more and more concern among governments around the world, including in the United States. It's sub-lethal costs are more and more understood, and economic costs have been estimated in loss of life-long earnings from people because of lowered IQ. It also causes sub-lethal effects in fish and wildlife that can lead to population effects.	MERC03
19210	[Include details of the following in the SDEIS:] Status of research on mercury. Scientific understanding of the biochemical/chemical/ecosystem processes that lead to effects in people, fish and wildlife has progressed to the point where there are a number of methods available to analyze mercury impacts in a water-rich environment-methods beyond and better than mercury content in fish. Also, inadequate literature reviews of mercury issues as seen in the SDEIS has contributed to erroneous conclusions, as noted in the specific comment section of this review.	MERC03, MERC04
19211	[Include details of the following in the SDEIS:] Relationship of new deposition of mercury and "legacy" mercury.	MERC04, MERC17
19212	[Include details of the following in the SDEIS:] Watershed/ecosystem approaches. Mercury/methylation processes are a function of the watershedand ecosystem, and "hot spots" for mercury are common. Analysis of impacts of mercury must use this approach.	MERC10
19214	[Include details of the following in the SDEIS:] Role of fluctuating water levels in mobilizing/de-mobilizing legacy or new-deposited mercury.	MERC11
19217	[Include details of the following in the SDEIS:] "Impoundment effects" on mercury methylation.	MERC10
19220	[Include details of the following in the SDEIS:] Climate change...This is because of the established relationship of drying and wetting of organic soils and sediments, and increased temperature causing increased methylation.	MERC20
19221	[Include details of the following in the SDEIS:] Mercury/mercury methylation relationship with sulfate and sulfate deposition. Addressing the potential for increased impacts from mercury involves more than controlling air emissions of sulfates. This point is made here because the SDEIS puts too much emphasis on such a strategy.	MERC08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Stolen (54517)	
19223	[Include details of the following in the SDEIS:] Significant-but qualified-findings about advantages of reducing sulfate in emission and other controls...Research needs to be focused on watershed differences, and on developing other program actions to reduce output of methyl mercury from legacy deposition are very much needed.	MERC08
19225	[Include details of the following in the SDEIS:] Cultural impacts, environmental justice, and differential impacts to Native Americans. As noted in Appendix A, these are important impacts that need more thoughtful consideration in the SDEIS. In addition, the FEIS needs to provide a summary of these issues so that others besides Native Americans can fully understand why cultural and consumption issues are so significant.	CR01, CR05
19227	Relying on methyl mercury content in fish-and consumption advisories-is an inadequate tool for addressing mercury impacts.	MERC02
19230	Bioaccumulation factors complicate other mitigation measures. As noted especially in Reference 17, Appendix A, river restoration, dam removal, and wetland restoration can mobilize methyl mercury in some situations.	MERC03
19234	Summary of water resources impacts, Page 5-8, mercury discussion. This section relies entirely on forecasts regarding mercury increases from the project based on mass balance and analog models of the specific mining facilities. This summary does not adequately describe potential impacts, based on the multitude of issues regarding off-site disturbances to rivers, wetlands, and downstream water resources as described in Appendix A.	MERC08
19235	Mercury evaluation criteria, p. 5-20 and 5-21. This criterion is based on an erroneous interpretation of the scientific literature regarding the relationship between ambient mercury content in streams and methyl mercury in fish.	MERC02
19237	Mercury section in water quality section, p. 5-201 to top of 5-207. (5.2.2.3.4). This discussion seriously understates the scientific understanding of mercury, methyl mercury, and impacts to people and fish and wildlife	MERC02, MERC03
19247	Comments on Section on "enhanced mercury methylation," and "mercury summary", pages 207-210 (7 comments.) This section of the SDEIS erroneously describes up-to-date scientific findings, and indeed even ignores other parts of the SDEIS.	MERC04
19248	First paragraph after "enhanced mercury methylation" p. 207: As noted, modelling does not equate with analyzing impacts. In this section of the SDEIS, there are four citations to mercury studies-but they are 23, 22, 22, and 15 years old. Leaving out all the recent studies again calls into question the objectivity of those preparing the SDEIS.	MERC04
19249	Second paragraph [after "enhanced mercury methylation" p. 207]: This paragraph notes that there are 6 factors that "appear" to influence mercury methylation, and that the proposed action is expected to have little or no effect on "most of those things," but that two, sulfate concentrations and hydrologic conditions warrant further discussion. This paragraph is seriously deficient because all four of the other factors are applicable to this project, especially given the downstream and potential indirect wetland effects described in other parts of the SDEIS.	MERC02, MERC10
19250	Sulfate loadings, p. 5-207 to 5-209. The review of literature in the first paragraph in this section is not really wrong, but doesn't fully reflect the scientific literature, especially recent literature. The comprehensive approach in the 2012 book on mercury in the environment (Reference 1 in Appendix A) is much more appropriate.	MERC04
19251	Sulfate loadings, first full paragraph on p. 5-208. This paragraph contains an inadequate review of the scientific literature in reaching the conclusion that mercury methylation occurs primarily in wetlands rather than in stream channels, and that methyl mercury is flushed into streams during storm events.	MERC08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Stolen (54517)	
19252	Sulfate loadings, reference to MPCA (2006), p. 5-208. This MPCA document is quoted in Reference #42 in Appendix A of these comments. This MPCA document refers primarily to sulfate permitting issues rather than impact assessment, and is also outdated in enough respects to question its utility for this EIS.	EDIT01
19253	Hydrologic changes and water level fluctuations, p. 5-210. This paragraph is woefully inadequate with respect to the scientific literature regarding water level fluctuations-it only says such fluctuations " ... probably accounts for some of the elevated methyl mercury concentrations observed in wetlands during releases from high flow events." "Probably?" See the numerous studies throughout Appendix A regarding impoundment effects, experiments adding water to wetlands, high flow events, etc.	MERC09
19254	Mercury summary. This statement is entirely inadequate because it claims negligible hydrologic changes, and confines itself to sulfate loading issues.	MERC11
19255	North Met project design changes and fixed engineering controls. (p. 5-21- to 5-212.) The SDEIS is not adequate with respect to the ability of these measures to control mercury/methyl mercury impacts.	MERC15
19266	The SDEIS needs to include the following in order to be adequate: An adequate analysis and assessment of mercury/methyl mercury issues	MERC02, MERC04
19268	[The SDEIS needs to include the following in order to be adequate:] An assessment of the effectiveness of these measures in controlling mercury/methyl mercury-as well as assessing whether any of the measures will exacerbate mercury problems	MERC06, MERC15, MERC21
19269	[The SDEIS needs to include the following in order to be adequate:] An assessment of the adequacy of these measures over the 200+ project life, and the ability of the measures to respond to unusually large and sudden precipitation events such as have been recently seen in Minnesota and in the project area. This needs to include a forecast of whether the features will handle changes caused by climate change.	FIN05
19270	Storm water ponds and stormwater runoff on any of the site. (in engineering/design controls, p.5-212, etc.) According to a number of studies, stormwater ponds are sources of methylation, especially if they use organic soils. They usually have such soils, because they enhance vegetation growth that that helps trap nutrients. There is therefore a conflict between the need to reduce methylation, and contain nutrients. This needs to be resolved in the SDEIS.	MERC20
19273	Since the SDEIS is deficient in providing an impact analysis of up-to-date research on mercury transport and methylation, including indirect effects of this project, these plans and designs need to be thoroughly looked at after this analysis is completed to determine whether they are adequate with respect to mercury impacts and prevention thereof.	MERC04, MERC10
19274	Page 5-223 says that" .... the proposed North Met Project Proposed Action would result in direct and indirect impacts to wetlands along the Transportation and Utility Corridor, at the Plant Site, and around the mine site (Area 1) and north of the plant site (Area 2.)" (my emphasis added.) The wetland section later goes on to describe potential impacts to wetland hydrology, and to drawdown of wetlands . Clearly, such effects can cause mobilization of methyl mercury . This conflicts with other sections of the SDEIS	MERC09
19278	it is not acceptable to state that hydrologic and elevation effects on wetlands will be monitored after project construction, or that actions such as post-construction wetland mitigation should impacts become evident. (As is done on p. 5-273 which refers to the 404 wetlands permit.)	COE02
19279	there is an existing "tried and true" method of determining functional wetland damage and thus proper mitigation under 404 permit regulations and practices, and this is not the case with increased mercury impacts	COE01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Stolen (54517)	
19280	a finding of risk of export of new and legacy mercury from the large acreage (according to the SDEIS) of indirect wetland impacts may enter into the decision as to whether to permit the project at all and so needs a pre-project analysis.	COE02
19281	Indirect effects to wetlands in general. It is unclear as to whether this analysis took into account climate change in the 200+ year project life.	WET07
19284	Wetland re-establishment during reclamation period. Page 5-224 says that 102 acres of wetland will be re-established during reclamation, and that this is not part of the mitigation credits for direct impacts. According to many references in Appendix A, this part of the proposed plan is a red flag regarding a potential site for increased mercury methylation. Perhaps I am missing such a reference; however, the potential for methylation of mercury stored in this material needs to be assessed in the SDEIS, as well as any outlet for such a wetland.	MERC09, MERC20
19287	Pages 5-224 through 5-229 talk about the methods for determining indirect effects on wetlands. Six potential causes of indirect effects are discussed. Any of these could be causes for increased methylation of mercury that could lead to impacts downstream or to fish and wildlife species that are found in these wetlands. Especially significant are the hydrologic effects. However, water quality changes could also have an effect, should they increase methylation. The SDEIS needs to analyze the impacts of these causes of indirect effects with respect to potential for increasing mercury methylation, transport, and impacts to fish and wildlife.	MERC08
19288	Indirect effects on wetlands abutting Partridge River and four creeks. Page 5-228 refers to these 5 waterbodies. Page 5-273, however, says there will be no such indirect effects on the Partridge River because of augmented flows from the project will be within average flow (and stage) without the project. Page 5-299 refers to the other creeks, but reaches the same conclusion. The SDEIS needs to clarify if these conclusions are based on potential added drying out of adjacent wetlands and rewetting- since using averages can mask such events.	WET12
19290	Results of the analysis of effects to wetlands, Pp. 5-233 through 5-310. This extensive section of the SDEIS projects different likelihoods of both direct and indirect impacts to wetlands and lists six potential causes of indirect effects. . .The analysis does not mention mercury methylation effects even though all six causes of indirect effects could lead to increases in methylation and export from at least some of the wetlands to downstream waters. This could cause fish and wildlife impacts, and increase mercury levels in fish. Estimates are made as to acreages affected with low to high risk, two different methods of estimating impacts are used, and types of wetlands impacted are included.	AQ12
19295	Subsequent pages in the SDEIS go into permitting authorities responsibilities and jurisdictions with respect to direct and indirect impacts to wetlands. This discussion needs to be expanded to include authority regarding permit decisions and mitigation regarding mercury-both new deposition and outputs from legacy mercury in these wetlands. Note that there is an implication that there is some clarification of EPA authority regarding mercury.	PER11
19296	Sulfate deposition from dust. P. 5-302 indicates that 194 acres of wetlands will potentially be impacted by dust deposition that includes sulfates. The SDEIS needs to address whether this will result in increased mercury methylation, and what will be done to control such affects, should they occur.	WET11
19297	Wetland description in Volume I, wetlands description. This section begins on p. 4-135. This section needs to include an assessment of the sensitivity of these wetlands to mercury methylation and export, including newly deposited mercury and legacy mercury. This would include clear statements as to outlets of these wetland, there susceptibility to "bounce", and descriptions as to whether they are currently disturbed.	MERC09
19298	Cumulative effects downstream with respect to mercury. Pp. 6-18 and 6-29 appears to tie its conclusions regarding mercury to changes in sulfate loading. If so, this conclusion is not supported, since based on current science, there are other significant landscape factors-and potentially changes caused by the project-that increase mercury levels. The statement on p. 6-33, the conclusions summary regarding mercury, needs to be redone based on the additional analysis recommended in these comments.	MERC10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Stolen (54517)	
19300	Other references to mercury in cumulative impact assessment. Pages 6-59 and 6-63 and 6-64 discuss mercury effects, including on fish. These statements are deeply flawed, in that they limit the discussion to sulfate deposition. In addition, p. 6-63 erroneously states that increased sulfate deposition causes a directly proportional increase in mercury in fish.	AQ28
<b>Sender Name (Submission ID)</b>	Paul T Mullen (57267)	
17409	There will be safer extraction methods in time if we still need these minerals.	PD32
<b>Sender Name (Submission ID)</b>	Paul Tine and Sherry Phillips (42883)	
6844	The water model does not account for seasonal variations in groundwater and surface water flows on the plant and mine site. The GoldSim model should be run with accurate seasonal data to reflect the movement of pollution from the site in both high and low flow conditions.	WR065
6845	Revise the NorthMet SDEIS to accurately and clearly predict the length of time that active water treatment would be required, and to clarify whether hundreds of years of water treatment comply with Minnesota Rules requiring that mines be "maintenance free" at closure.	WR036
6846	Include a cumulative impacts analysis that examines the impact on moose, recognizes the changed status of the moose as a species of "Special Concern," and requires NorthMet to mitigate the habitat loss for the moose caused by the NorthMet project.	WI01, WI02
6850	Since sulfate levels in wild rice beds downstream of the proposed mine already exceed the standard, the proposal must demonstrate it "would have an acceptably high probability of not increasing sulfate concentrations in these areas" (p. 5-6). The mine plan does not meet this test	VEG04, WR024, WR083, WR109, WR158, WR162
6853	Conduct a health impact assessment for the NorthMet project, and include the results of the assessment in the EIS. The HIA should include examination of all aspects of public health affected by the proposal, including analysis of the social determinants of health.	HU01
6855	Require that the NorthMet SDEIS include mentions of Glencore as the largest shareholder of PolyMet stock, the largest investor in the NorthMet project, and as the owner of the first five years of NorthMet's minerals due to an off-take agreement with PolyMet.	PER02
6857	the review period for this document is inadequate...The SDEIS was released during the holidays when many people were on the road and commenting on this was not easily done. The public meetings were scheduled right away before most people really had time to look at this document and understand all the ramifications of what is being proposed.	NEPA07
17522	Considering the intention of the Weeks Act to protect watersheds, the exchange of this large, single 6,650 acre parcel of forests, floodplains and wetlands with high biodiversity for smaller, scattered parcels of non-federal lands should not be considered an equal exchange.	LAN02
17523	Acquiring lands in exchange to protect watersheds - such as the Hay Lake area - are important. But 6,000 plus acres in the Partridge River drainage- with functioning wetlands - should not be a candidate for exchange out of public ownership.	LAN01
17525	How can an equal exchange of lands be made without being able to compare the actual health of the systems being proposed for exchange?	LAN03
17526	Studies should be done of the water quality in areas proposed to substitute for the exchange lands in the Partridge River watershed.	WR199
17528	While smaller areas of high to moderate biodiversity may be gained, they do not compare to the intact, large area in question.	VEG02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Paul Tine and Sherry Phillips (42883)	
17529	Rankings should be provided for the lands proposed for exchange.	LAN03
17530	All appraisal information for the proposed land exchange should be disclosed.	LAN03
17531	The NorthMet SDEIS inadequately characterizes the wetlands loss and proposes inadequate mitigation measures.	WET04
17532	Revise the SDEIS to specifically outline measures that will be taken to reduce indirect wetland impacts and compensatory mitigation, as opposed to deferring such contingency planning to permitting.	WET20
17533	Revise the SDEIS to provide a range of estimates of indirect wetlands impacts and plans for mitigation based on these estimates, instead of waiting to see what the indirect wetlands impact will be.	WET07
17534	Revise the SDEIS to outline what types and amounts of financial assurance for wetland replacement would be required if indirect wetland impacts exceed the predicted area and extent of damage.	FIN05, FIN08, FIN11
17535	Redo the GoldSim water model using assumptions based on adequate and accurate field data.	WR052, WR165, WR189
17536	Gather field data to fix gaps in flow data for the Partridge River near Dunka Road, as suggested in the DNR memo written by Greg Kruse on December 17, 2013.	WR004
17537	Recalculate and rewrite sections of the SDEIS based on the GoldSim water model predictions, including water quality, water quantity, post-closure maintenance, and financial assurance because of the issues with the model assumptions.	FIN05
17538	Redo the GoldSim water model to account for seasonal variations in base flow and soil conductivity.	WR065
17539	The mine plan calls for hundreds of years of maintenance and operating active water treatment plants, and violates this rule [Minnesota Rule 6132.3200].	WR037
17540	Revise the SDEIS to clearly state how long the need for active water treatment (reverse osmosis or other mechanical treatment) is predicted, according the models used in the SDEIS.	WR036
17541	Extend the water model timeline as far as needed to show when all pollutants would meet applicable water quality standards and provide the public with a clear statement of the best available prediction for the time frame of mechanical water treatment.	WR036
17542	Revise the SDEIS to address Minnesota Rules 6132.3200 and clarify how the post-closure activities described in the mine plan are consistent with the mandate that the closed mine site be "maintenance free."	PER04, WR036
17543	Despite the special significance of the moose to tribal members, there is no cumulative impacts analysis of the loss of moose habitat in the SDEIS...The tribal cooperating agencies have noted this deficiency, but it has not been addressed in the SDEIS (Appendix C, Attachment 3, pp 45-46).	CR01, CR03
17544	The waste rock left behind at the Mine Site will create runoff with sulfate levels of 2,000 to 4,000 micrograms per liter after closure, 5 million gallons of which will escape untreated every year. The SDEIS predicts that many years after closure this could violate the sulfate standard to protect wild rice, requiring additional measures (5-142).	WR107

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Paul Tine and Sherry Phillips (42883)		
17545	The SDEIS inadequately characterizes wild rice waters downstream of the PolyMet sites. The Great Lakes Indian Fish and Wildlife Council has provided additional wild rice sites other than those included in the SDEIS. The EIS should be revised to include these additional wild rice waters.	WR154
17546	The NorthMet SDEIS contains inadequate analysis of risks to public health from the proposal.	HU01
17547	NorthMet’s plan does not study any risks to on-site workers and does not include a Health Risk Assessment of the effects of mercury, manganese, lead, arsenic, and other pollutants on people living downstream.	HU02, HU04
17548	The SDEIS further acknowledges that there have been few studies of the risk from fibers of the size that would be created at the NorthMet mine and plant site. A health impact assessment (HIA) to fully analyze the public health implications of NorthMet’s proposed mine should be done.	HU01
17549	The NorthMet project could affect human health in many ways. Some of these effects are direct – for example, exposure to air and water pollutants like mercury, asbestos-like fibers, manganese, and arsenic. Others are indirect, such as the impact on local communities from traffic accidents and strains on local health and social service infrastructure.	HU03
17550	Revise the SDEIS and conduct a formal health assessment of the risk to public health and worker safety from the amphibole fibers present in the ore at the NorthMet mine site. The SDEIS should specifically conduct a formal health assessment of the risks from asbestos-like fibers less than 5 microns in length	HU01
17551	Revise the SDEIS to provide details of the air monitoring at the mine and plant site and in nearby communities, and describe contingency plans to address the risk to public health and worker safety if asbestos-like fibers are detected during construction, operation, closure and post-closure.	AIR03
17552	The discussion of financial assurance in the SDEIS is inadequate in several ways, but one is the lack of any mention of Glencore - the largest shareholder, largest funder, and owner of the first five years of minerals from the proposed NorthMet mine. Since PolyMet is a junior mining company that has never operated a mine before, and since their assets are limited, the best guarantor of bankruptcy-proof financial assurance is the inclusion of Glencore in any potential liability from pollution at the site.	FIN01, FIN02
17553	The NorthMet SDEIS should establish that the owner of the mine's proceeds and largest investor is responsible if pollution occurs.	FIN01, FIN02
17554	Include Glencore in the financial assurance section of the document as a potentially responsible party, in case the financial assurance required of PolyMet proves to be inadequate.	FIN01, FIN02
17555	Require that any permit to mine for PolyMet include Glencore, due to their status as largest investor and owner of the minerals produced by the mine.	PER02
<b>Sender Name (Submission ID)</b> Paul Underland (18165)		
3879	The amount of groundwater flow that has been added to the Partridge River this was originally measured at .5 cubic feet per second. New data now shows that (inaudible) between 1.3 and 1.6 cubic feet per second....this new data is not likely to change the assessment of the project relative to the project's ability to meet water-quality standards.	WR003
3881	The models were actually designed to determine the impacts to water quality at key reference points in the watershed, not the length of water treatment...and [the SDEIS] shows that even 500 years from now water-quality standards will be met.	PD28, WR190
<b>Sender Name (Submission ID)</b> Paul Vonharnish (17020)		

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Paul Vonharnish (17020)

9946 It is obvious that the water tables in Minnesota and Wisconsin are both extremely vulnerable to pollutants spreading through ancient underground aquifers. WR115

16973 It is also obvious that any profits derived by these environmentally exploitive enterprises, will never be seen by the citizens of Minnesota, much less the American people. These profits are leached out of our economy and go right into the coffers of international banking cartels. SO01

**Sender Name (Submission ID)**    Paul Wagner (58170)

19994 The PolyMet project represents an opportunity to not only help the state remain competitive, but to lead...This type of mining will help to broaden a state economy that has lost much of its technology diversity over the past generation. Not only will the mines be a source of critically-needed metals to growing and emerging industries; but they will also help to create jobs in a region that has struggled to contribute to the economy, but remains eager to do so...the economic development benefits derived far outweigh any of the concerns for negative outcomes, as the review makes clear. Minnesota needs to be aggressive with its economic development efforts given the relentless acceleration of a global technology market. SO10

20018 This type of mining will help to broaden a state economy that has lost much of its technology diversity over the past generation. Not only will the mines be a source of critically-needed metals to growing and emerging industries; but they will also help to create jobs in a region that has struggled to contribute to the economy, but remains eager to do so...the economic development benefits derived far outweigh any of the concerns for negative outcomes, as the review makes clear. SO10

**Sender Name (Submission ID)**    Paul Walker (11333)

277 If PolyMet is allowed to sulfide-mine, the aquifers and watersheds of the Ely area will be eternally polluted and thus, sadly cause the eventual demise of the BWCAW and the tourism industry. WR081

1611 Although in and around Ely, the local support seems to be running in favor of those who are willing to sacrifice Mother Earth in favor of 200-300 short term, twenty-year jobs many of which will be filled by non-Minnesotans, there are plenty of us that view this proposal for mining as a dangerous and foolhardy operation, especially when the usable yield is only 1%, leaving 99% as contaminated waste SO01

1612 Nowhere on this planet has copper-nickel, sulfide mining been done without contaminating the waters. WR023, WR195

1613 Glencore, a company headquartered in Switzerland funds Polymet. Glencore's history of world-wide wanton disregard for the environment and human rights atrocities, including child labor, are well documented. Does Minnesota want to get in bed with a company such as Glencore? PER02

1614 I urge Governor Dayton, the Department of Natural Resources and the US Army Corps of Engineers to protect Minnesota's fresh water and the BWCAW by rejecting Polymet's proposal. PER35

**Sender Name (Submission ID)**    Paul White (15792)

883 Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands. PER34

884 I have confidence in the DNR and believe the SDEIS process for PolyMet Mining's proposed NorthMet project has been sound and thorough. NEPA16

1906 The state and federal regulators will ensure that PolyMet's project design, and its operations are legal and safe. PER34

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Paul Winslow (38250)		
13674	The proximity to the BWCA is one of my primary issues. I value the pristine environment of the BWCA above the temporary nature of the proposed mine	WILD02
13675	Twenty of years of mining will have long lasting effects on the environment of the BWCA as run off from the mine finds its way to the watershed, and adds acid to the water flowing to the BWCA. I want the BWCA to last forever, and the short term nature of 20 years of mining and 500 years of clean up.	SO01, WR111, WR195
<b>Sender Name (Submission ID)</b> Paula Allmaras (7149)		
490	Acid mine drainage would pollute surrounding water. ADM's leach out heavy metals toxic to fish & humans. I am not willing to risk the boundary waters, Lake Superior or any ground water close to the proposed copper mine for a million jobs.	AQ08, SO01, WR001, WR113
<b>Sender Name (Submission ID)</b> Paula and Jim Nessa (39797)		
6831	Will the mine owners be there to continue the clean up when the mine closes and there is no income from the copper ore?	FIN01
6832	We need to know how much income the state will receive in exchange for the ore.	SO04
<b>Sender Name (Submission ID)</b> Paula Bidle (48479)		
7600	While PolyMet will provide a few jobs for a few years, the overall deal is that they will profit immensely from the project, while leaving the people of the state of Minnesota to deal with clean-up and healthcare costs due to water pollution for years after PolyMet is no longer in existence.	HU03
<b>Sender Name (Submission ID)</b> Paula Gregg (4533)		
1836	I want specifics on how PolyMet will pay the costs of treatment in the centuries to come, for the residual rock and water contamination. ... Minnesota law prohibits permits to mines that require perpetual maintenance after closure.	FIN01, FIN14
1837	How many other mines will send their rock to be treated at this treatment plant? ... You can't be naïve enough to think they are putting all this money into the treatment plant to only treat the rock from one mine!	PD30
<b>Sender Name (Submission ID)</b> Paula Kay Pettit (54552)		
18960	I feel our precious waters are too valuable to take any chances with unproven mining techniques.	WR195
<b>Sender Name (Submission ID)</b> Paula Kwakenat (357)		
12115	This short term job promise is not worth the long term damage.	SO01
<b>Sender Name (Submission ID)</b> Paula Nelson (47031)		
10932	The destruction of beautiful land and the years of pollution simply cannot be justified.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Paula Okerstrom (18952)		
14325	I'm writing to say that you need to extend the comment period for all of us Minnesotans that need MORE TIME to consider the destruction ahead of us. My cabin is located in your ground zero area, and because I work, and have a family, and other things in life to tend too, I need more time to study this complicated impact statement.	NEPA07
<b>Sender Name (Submission ID)</b> Pauline Gowing (13150)		
109	I am highly concerned about this habitat being compromised.	VEG03
110	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
111	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Pauline Laybourn (31676)		
14011	It is sickening to see what power corporations have to destroy our planet.All for PROFIT and GREED.	SO02
<b>Sender Name (Submission ID)</b> Peder Otterson (14888)		
244	These examples [Sudbury, Ontario smelter and Silver Bay Reserve Mining tailings] should be more closely examined along with the base line data from the Regional Copper Nickel Study before the final decision is made.	WR023
245	the results and base line studies of the Regional Copper Nickel Study, Sudbury, and other sites in Wisconsin and Michigan where similar conditions might exist should all be used to help shape the monitoring that will be required as the project moves forward so that check points can be established to deal with unforeseen consequences	PD22, WR023
246	check points along with the required monitoring should be written into the permits to mine so that corrective actions can be taken whenever issues arise.	PER34
1786	My point in mentioning all of this is that there is a wealth of base line information that was gathered nearly 50 years ago that might help answer some of the questions that the current proposal to mine leave hanging. I would like some assurance that all the good work done on the Regional Copper Study was not in vain.	WR023
<b>Sender Name (Submission ID)</b> Peg Apka (20037)		
1680	I do not understand how a mining company would have the resources to provide for clean up costs for 500 years.	FIN01
1681	How could we even think of having a project in Minnesota that would take a chance on polluting a third or more of the world's fresh water	WR111, WR115
<b>Sender Name (Submission ID)</b> Peggy Knapp (46527)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Peggy Knapp (46527)		
9125	The proposal by Polymet puts water at risk, now and in the future.	WR111
9126	There is no good example anywhere on this planet of a facility such as the one proposed by Polymet that has not left a legacy of pollution behind.	WR023
9127	At a time when water resources are being depleted, when the state of MN is already struggling to reduce nitrogen, phosphorus, sediments and other system-wide pollutants, it is sheer lunacy to permit mining on this scale, and in such a fragile area.	WR195
<b>Sender Name (Submission ID)</b> Peggy Trezona (7737)		
76	The fact that water treatment will need to continue for many years post-mining reflects the gravity of the risks to our watershed and the health of human beings.	WR035, WR129
843	I do not believe that increased jobs for a couple of decades can offset hundreds of years (maybe longer) of damage to the environment.	SO01
<b>Sender Name (Submission ID)</b> Pehrson Lodge (36707)		
7686	To seriously consider the Polymet proposal, Polymet must be able to absolutely guarantee that they will not negatively impact our water resource, and I do not believe such a guarantee is possible.	FIN01, WR017, WR018, WR111, WR128
14405	I think it is very unwise to risk the well-being of many generations to come over 20 or 30 or 40 years of profits.	SO01
14406	To seriously consider the Polymet proposal, Polymet must be able to absolutely guarantee that they will not negatively impact our water resource, and I do not believe such a guarantee is possible.	FIN01
<b>Sender Name (Submission ID)</b> Penny Cragun (11546)		
2500	In addition to an acute potential for Acid Mine Drainage and the discharge of heavy metals to the St. Louis watershed, the PolyMet mine would discharge sulfates at a level that would destroy wild rice stands downstream.	WR149, WR156
2500	In addition to an acute potential for Acid Mine Drainage and the discharge of heavy metals to the St. Louis watershed, the PolyMet mine would discharge sulfates at a level that would destroy wild rice stands downstream.	FIN05, FIN01
2501	Ongoing studies indicate that when sulfates convert to sulfides, they affect the growth of wild rice. I know that wild rice is important to my Ojibwe brothers and sisters in this region. Please keep our water pure and allow our future generations to maintain the wild ricing tradition.	CR01, WR149, WR156
2501	Ongoing studies indicate that when sulfates convert to sulfides, they affect the growth of wild rice. I know that wild rice is important to my Ojibwe brothers and sisters in this region. Please keep our water pure and allow our future generations to maintain the wild ricing tradition.	MERC04, MERC22
6610	Due to the problems with the draft mine plan outlined above, I believe the mine should not be built as described. Our water is far too precious. I want my grandchildren and future generations to be able to enjoy safe water	WR195
<b>Sender Name (Submission ID)</b> Penny Fuller (37527)		
10540	those financially benefitting from the mining are never held accountable in a meaningful way (equal recompense when the inevitable contamination occurs).	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> pepe (45088)		
7554	Even a cursory review of the facts--and of history--show clearly that [NorthMet Mine] is likely to result in environmental catastrophe.	PD22
7557	And to take such a long term, high stakes gamble for so few jobs created? It is truly beyond comprehension. There are other states I would expect to cave to narrow private interests, veiled in supposed "job creation", but Minnesota is not one of them.	SO01
<b>Sender Name (Submission ID)</b> Personal Gmail (41731)		
3253	As everybody knows, sulfide mining causes long lasting water pollution that can cause serious health problems.	HU03, WR023
3254	you might also know that tourism is the leading economic industry in our state. And people aren't vacationing here because of our dirty, polluted waters, but rather to escape the filth they probably live in in their home state.	SO02
<b>Sender Name (Submission ID)</b> Pete Fleming (15412)		
637	It seems strange to me that we are spending—over the next 25yrs via the Legacy Amendment---about \$2.0 billion on cleaning up impaired waters while at the same time we are planning on creating large volumes of polluted water near environmentally sensitive areas.	WR195
638	The water model used for the Polymet site appears to have serious questions regarding flow through the site especially the Partridge River. I am very concerned that serious flaws exist and that the model does a poor job of taking into account existing conditions.	WR003, WR086, WR091
639	Water treatment for 200 and 500yrs is proposed for the mine and plant site. I consider this forever and it gets out into an area where assumptions easily breakdown .	PD03, WR035
640	Financial assurance to provide for keeping the above water treatment going is estimated to be \$3-6m/yr which suggests total costs in the billions which is in addition to one time mine/plant closing costs. This is serious money and needs to be cash controlled by a state agency. It needs to be addressed up front—now.	FIN13
643	Although not part of the EIS, it is important to be aware that there will be significant collateral environmental damage through the industrialization of large areas near the mine ... and will be a significant negative effect on the environment.	LU03
<b>Sender Name (Submission ID)</b> Pete Pellinen (40817)		
10133	As a resident of this region, owning land on the Embarrass River, and a frequent visitor to what is now known as the Boundary Waters Canoe Area Wilderness, I am concerned that these resources be protected. I believe they can.	WR111
14010	With the State requirements imposed in Minnesota, and developing techniques for mining, I trust that a system can and will be created that will successfully extract the metals, while protecting our waters and air.	PER34
<b>Sender Name (Submission ID)</b> Pete Seng (39337)		
6111	We don't need a future "SuperFund" site in Minnesota. Northeast MN is blessed with pure clean water that flows north to Canada and east to Lake Superior and beyond, and I would like to keep it clean and safe for future generations.	WR195
<b>Sender Name (Submission ID)</b> Pete Stauber (18111)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Pete Stauber (18111)		
3358	I'm tired of hearing the untruths from the anti-mining crowd that the water treatment will be required for 100 years and cost billions of dollars. From what I read in the SDEIS that is a gross exaggeration. On pages three and four of the SDEIS it states, "It is uncertain how long...It does not say, "treatment will be required for 500 years." It says "treatment will be determined using measured results." Which is the way the law is designed to responsibly handle it. Isn't that logical?	PD28, WR190
3359	The SDEIS shows that PolyMet built and operated a piling reverse osmosis water treatment plan to show that it can successfully treat the kind of water it will have on the project. The plan worked. It's proven technology that's been used in lots of other municipalities and industrial applications.	PD28
13475	PolyMet has been working with regulators for nearly 10 years to ensure compliance. Any holes that were discovered during the EIS have been addressed in the SDEIS. The SDEIS is a clear reflection of PolyMet's and the agency's work to develop a successful copper-nickel mine bringing an important investment to St. Louis County.	NEPA16
<b>Sender Name (Submission ID)</b> Pete Wohlers (15001)		
356	If that [permitting] process is followed and a business provides all necessary information the permits should be approved. Polymet has gone above and beyond what they should have to.	PER34
<b>Sender Name (Submission ID)</b> Peter Berridge (40615)		
6253	Bottom line, regardless of the specifics above, this type of mining is unsafe, detrimental to our ecology - which we value highly in Minnesota - and is not worth the small number of jobs that are produced for such a limited period of time.	SO01
<b>Sender Name (Submission ID)</b> peter bormuth (43002)		
11415	Water that has contacted surfaces disturbed by mining operations (including the stockpiles) as well as seepage from the Tailings Basin would be captured in containment systems and treated at wastewater treatment facilities located at the Mine and Plant sites by treatment methods that have never previously been used on mining wastewater, nor is there demonstrable evidence that they will be effective.	WR128, WR143
11423	This proposed mine also fails to meet the standards set by Minnesota Rules 6132.2200 (Reactive Mine Waste) which states as policy that: "reactive mine waste shall be mined, disposed of, and reclaimed to prevent the release of substances that result in the adverse impacts on natural resources." The rules further specify that the permit applications mining and reclamation maps must show "detailed drainage patterns for waters that may contact reactive mine wastes." (Minn. Rules 6132.100, subpt 7(C)). Since the filed maps show Lake Superior is part of the drainage basin for this proposed mine, this permit must be denied.	PER35
11427	the Swiss Company Glencore has a significant financial stake in PolyMet and the proposed NorthMet mine...Glencore has been implicated in environmental disasters, labor violations, and human rights abuses around the globe	SO02
15278	Because this proposed mine (and other future sulfide mines) threaten Lake Superior, approval of this mine would violate the International Boundary Waters Treaty of 1909, the Great Lakes Charter of 1985, the Great Lakes Charter Annex of 2001, and the most recent regional water agreement, the Great Lakes Compact of 2005 which holds "As trustees of the Basin's natural resources, the Great Lakes States and Provinces have a shared duty to protect, conserve, and manage the renewable but finite Waters of the Basin for the use, benefit and enjoyment of all their citizens, including generations yet to come."	PER27

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> peter bormuth (43002)		
15279	The Public Trust Doctrine embodies the time honored concept that the State holds all navigable waters in trust for the public...The Minnesota Supreme Court has recognized the public trust doctrine in all navigable waters, including Lake Superior. The Minnesota Court has also declared that “[a] riparian owner’s rights are qualified, restricted, and subordinate to the paramount rights of the public,” which include such uses as “commercial navigation, the drawing of water for various private and public purposes, recreational activity, and similar water-connected uses.” (see <i>Nelson v. DeLong</i> , 7 N.W.2d 342, 346 (Minn. 1942)).	PER35
15280	...the tailings and waste rock from this proposed mine will produce acidic discharge and metal-laden leachate that will irreparably damage the St. Louis River and turn Lake Superior into a large polluted tailings pond.	WR001, WR111
15281	16 communities draw their drinking water directly from Lake Superior...The drinking water of all these communities is threatened by this project. Minnesota has enacted a citizen suit provision that grants the right of a person to bring a lawsuit to protect the air, water and natural resources from pollution or impairment (see MINN. STAT. § 116.B.03 (1971) and this statutory provision will be used to stop this proposed mine.	PER04
15282	This proposed mine also fails to meet the standards set by Minnesota Rules 6132.2200 (Reactive Mine Waste) which states as policy that: “reactive mine waste shall be mined, disposed of, and reclaimed to prevent the release of substances that result in the adverse impacts on natural resources.” The rules further specify that the permit applications mining and reclamation maps must show “detailed drainage patterns for waters that may contact reactive mine wastes.” (Minn. Rules 6132.100, subpt 7(C)). Since the filed maps show Lake Superior is part of the drainage basin for this proposed mine, this permit must be denied.	PER04, WR060, WR071, WR081, WR111
15283	A basic tenet of the Minnesota Environmental Protection Act is to prohibit any governmental action, approval or permit of an activity that may cause significant harm to any part of the environment where there is a feasible or prudent alternative available. (see Minn. Stat. § 116.04(d), subd 6). Since there has never been a sulfide mine anywhere in the world that has not produced acid mine drainage and heavy metal contamination, a prudent alternative is not to allow mining in any drainage that flows into Lake Superior.	PER35
15284	The mine pit will overflow. The tailings basin will leak into surface water. The waste piles will leach into wetlands. This proposed mine will release fugitive dust, leachate, heavy metals, sulfide compounds, and unrecovered processing chemicals and other substances that irreparably harm wild rice, fish, and other natural resources and by statute this permit must be denied.	AQ05, WR151, WR156
15285	Minn. Rules 6132.3200 states that after closure a mine must be “maintenance free”. ... But every other sulfide mine has been an ongoing source of pollution when it is closed.... [The flooded pit] will most certainly overflow into the Partridge River releasing contaminants into the St. Louis watershed and Lake Superior. Every year the U.S. Environmental Protection Agency tracks pollution releases in the United States. The Mining Industry has always been the largest source of pollution in the country since they started reporting discharges in 1998, releasing 41% of all polluted discharges	PER04, WR023, WR037
<b>Sender Name (Submission ID)</b> Peter Branca (54165)		
16065	this company has no financial backbone to mine safe or for cleanup cost.	FIN01
18422	how can they meet the cost of a consequence, a negative consequence or pending lawsuits? Since this is a very risky and expensive operation and has inherent dangers over the years, I feel very uncomfortable having a company come in to -- since I am a stockholder in the State of Minnesota -- come into my state, with little or no financial reserves to back them up.	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Peter Branca (54165)		
18423	In Minnesota, where PolyMet will be mining in a literal swamp, with literally no water table, and my feeling is the consequences will be severe to this, regardless of the amount of osmosis and filtration or holding ponds and pits. Fine metals will seep through the ground, into the water table, into the rivers, and eventually into Lake Superior	WR070, WR111
18425	Since I'm a stockholder in the State of Minnesota, I feel the consequences well outweigh the gain.	SO01
<b>Sender Name (Submission ID)</b> Peter Brask (4778)		
1889	The copper and nickel resources in northern Minnesota are still a very important resource to our entire country	NEPA05
1890	Polymet would provide jobs and tax revenue with the copper/ nickel expansion and contribute, not deter from tax revenue.	SO10
1979	When Polymet gets to expand, we MUST ensure we have procedures in place to ensure they comply with our pollution guidelines.	PER06
<b>Sender Name (Submission ID)</b> Peter D Doran (54725)		
18701	The hydrometallurgical separation process proposed by Polymet represents a much more environmentally acceptable method, and reflects the progress made by the global mining industry in response to environmental concerns associated with the mining and processing of metal sulfide minerals.	ALT24
18704	It is noteworthy that in addition to proposing reverse osmosis for discharge treatment, the Polymet SDEIS recommends considerable reduction of water discharge, primarily through the recycling of treated water back into their processing operations.	PD03
18707	After over 60 years of exploration in the Duluth Complex (Bear Creek Mining initiated drilling on the Minnamax site in the 1950's), the economics would seem to be favorable for Minnesota to finally capitalize on the potential royalties associated with mining development in the formation.	SO02
18709	There will no doubt be water resource impacts associated with any mine development in the Duluth Complex. However, what I feel has not been considered is the volume of flow both north and south of the Laurentian Divide, relative to the size of the proposed operations and their potential discharges.	WR087, WR099, WR181, WR182
<b>Sender Name (Submission ID)</b> Peter Fleischacker (18236)		
13594	I'm really troubled by this because there appears to be no way that the public is assured that their response to the whole issue is even considered. I think it's a done deal and this is a farce, and I'm really troubled by that, and I hold the media and the politicians responsible for that,	NEPA11
<b>Sender Name (Submission ID)</b> Peter Fleischacker (58095)		
19923	I can't think of anything that is worse than this. 300? Jobs? And all the profits go where?	SO01
19965	Real Problems...Children born with pollution in their system.	GT01
<b>Sender Name (Submission ID)</b> Peter Henry (54731)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Peter Henry (54731)	
18788	siting a sulfide operation amidst well-established public recreation areas crosses the threshold from poor public policy to profligate and ill-considered mismanagement of public resources.	LU06
18795	Any form of sulfide mining in highly aquatic and sensitive areas is a recipe for degradation, and likely, severe degradation.	WR107, WR108
18798	PolyMet's proposed North Met Project, siting a gigantic open-pit copper mine at the door of Minnesota's wilderness, its environmental impacts, and unintended, indeed, unknowable environmental consequences, represents a savage reversal of Minnesota's long-standing recreational strategy, will prove to be an unconscionable waste of public monies and rises to a violation of Minnesotan's basic trust in public leadership.	LU06
18801	Indeed, why have a, "Department of Natural Resources" at all, if natural resources are judged but merely "equal" to pursuits like manufacturing or resource extraction?	PER42
18802	There are several areas in the current SDEIS that surpass the level of "acceptable risk" to the State's Public Trust regarding our lands and water.	NEPA15
18805	First, as you and MDNR staff are well aware, the biggest potential negative impact of sulfide-type mining is the risk of massive water pollution, brought on by exposure to oxygen of the underlying rock ... because of these risks that open pit copper mines are typically sited AWAY from dense water environments, not WITHIN them.	WR001, WR023
18812	The modeling conducted by your agency significantly underestimated stream flows in the Partridge River, thus leading to a severe underestimate in potential downstream damage from sulfide pollution.	WR003
18814	The bentonite soil curtain that is supposed to keep contaminated water from leaching and seeping beyond containment zones has not been adequately field tested in Minnesota's harsh northern climate, nor independently verified for integrity under analogous conditions.	WR057
18815	The likelihood of extreme storm events rupturing, overtopping and otherwise defeating NorthMet's containment strategy are dangerously high given the increased frequency of 500-year storms in the age of climate instability.	PD22
18819	A single accident involving such a large resource extraction site would likely result in tens of millions of dollars of clean up, and millions of dollars in forfeited revenue from tourism and job losses.	SO02
18820	I dispute such job estimates as wildly inflated, as they always are, and in this case, dramatic overestimate -- even leaving aside how many of the positions are sourced internal to PolyMet, with minimum benefit to the local economy.	SO01
18829	it does bring up a second unacceptable aspect to PolyMet's proposal: the independent bonding requirement, or so called "financial assurances" required by the State of Minnesota. ... The ultimate and most important question is this: Will PolyMet itself ever have to use the profits they make at the North Met Facility to pay for the environmental degradation they cause?	FIN01, FIN08
18831	Due to this SDEIS's lack of investigation and discussion about the likelihood of widespread pollution, the State will require minimal financial assurance from PolyMet, leaving the citizens of Minnesota to essentially pay the balance between PolyMet's profits and the costs of its pollution.	FIN01, FIN10
<b>Sender Name (Submission ID)</b>	Peter Krause (11584)	
2243	500 years!!! even if it's 200 yrs future generations will not be happy to be paying for nor working to clean up the mess that is most likely to be left behind. With the only social constant to be change they may very well not be able to maintain the clean up program nor systems.	FIN01, FIN10

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**Sender Name (Submission ID)**    Peter Krause (11584)

2243 500 years!!! even if it's 200 yrs future generations will not be happy to be paying for nor working to clean up the mess that is most likely to be left behind. With the only social constant to be change they may very well not be able to maintain the clean up program nor systems.    FIN05, FIN10

2874 500 years. Even if it's only 200 years, future generations are not going to be pleased to be committed to cleaning up this mess.    PD01

3249 It's the Boundary Waters and the Great Northwoods, not a poker chip to lose.    WILD02

3249 It's the Boundary Waters and the Great Northwoods, not a poker chip to lose.    WILD02

14723 This is a great risk and the Boundary Waters we are gambling with. We are playing with high stakes for short-term gain. I strongly encourage rejection of this plan.    SO01

**Sender Name (Submission ID)**    Peter L. Gove (9618)

228 I noticed on the Figure I map, there is a category for "national park" and a portion of Voyageurs National Park is noted on that map. However, Isle Royale National Park is not on the Lake Superior map and while several of the Apostle Islands are on this map, the Apostle Islands National Lakeshore is not noted. While the Grand Portage reservation is on the map, Grand Portage National Historic Site is not. I also question why the several state parks located on Lake Superior are not on this map....given the potential impact to Lake Superior from surface and groundwater sulfide pollution from this project, I suggest these designated federal and state protected areas be included    WILD01

**Sender Name (Submission ID)**    Peter M Leschak (42785)

6795 However, should the project be permitted, I believe some modifications should be implemented. The West Pit backfill appears to have been rejected on the basis of future exploitation of mineral rights, that is, for the sake of law and politics, as opposed to environmental concerns. Properly backfilling the pit with waste rock would be a good means of mitigating potential ecosystem damage- as is planned for the other pit....Regarding the 1585 acres of wetlands that would be destroyed or severely compromised, and given the overall loss of Minnesota's wetlands over the past century due to various types of human activity, a project of this nature should be required to replace such acres at a 2 to 1 ration; in other words, PolyMet should be mandated to replace 3170 acres. If such is impractical in the local region, there are many other locales in the state where wetlands creation and /or rehabilitation would be welcome and beneficial....Unless I missed it, I see nothing about contingency plans for a rail accident ... Over the course of 20 years, a railroad mishap is almost inevitable- for example, over the years there have been several such local episodes involving the rail transport of taconite. Is there a mitigation plan for that?    HAZ06, WET04, WI10

6799 Everyone admits the hazards implicit in mining and processing sulfide-bearing ore- that's why there's a 2000-page report. No one denies that such mines have caused severe, and essentially permanent, damage in places like Butte, Montana, Sudbury, Ontario, locations in Arizona, and all around the globe. There is no assurance the result will be different in NE Minnesota, and yet for a 20-year mine employing 360 people ( an almost ephemeral project compared with the area's iron mines), its proposed that complicated and expensive monitoring and treatment processes must be in place and functioning for 200 to 500 years. Given the typical vagaries and unpredictability of politics, technology and human nature, it is highly unlikely that such a regime will be, or even can be, maintained. (For example, a hundred years ago the MNDNR didn't exist. Will it exist 200 years from now?)...most of the profits (benefits) of which will almost certainly leave the borders of Minnesota.    FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Peter M Leschak (42785)		
6802	the proposed Pebble Mine in the Bristol Bay region of Alaska has meant stiff opposition. An Alaska Congressman is opposing the project on the grounds that the health of a renewable resource (in that case, a salmon fishery) should trump the one-time extraction of dangerous sulfide ore. That should also pertain here in NE Minnesota: water, wetlands, and wild rice resources are more important, long term, than a temporary and destructive mining operation...Concerning the potential effects on water quality, on of the fact sheets that I picked up at the Aurora meeting[,] states that sulfate, copper, nickel, and mercury could be released. Based upon my experience in the fields of water treatment and natural resources, that should read will be released. Computer modeling was employed to determine a “90 percent probability” that no pollutants would cause an exceedance of the water quality criteria. Given the inherent assumptions that must be made in any modeling program, that seems highly overly optimistic. Furthermore, it’s noted that “PolyMet would monitor water quality during operations, reclamation, and closure at water discharge points and downstream.” ... It’s seems inadvisable to depend on the company to perform such a critical function, especially when it is potentially hurtful to their bottom line.	PD24, SO01, WR115, WR139, WR141, WR192
6807	The final product from the plant is presumably copper concentrate, mixed nickel/copper hydroxide, and PGE precipitate, in amounts of tens of thousands of tons per year. If I’m not mistaken, this is all reactive and hazardous material, and apparently will be transported from the region via railroad. T?	HAZ06
<b>Sender Name (Submission ID)</b> Peter Mattson (38610)		
14065	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats. This trade-off is not worth the risk.	WI13, WR115
<b>Sender Name (Submission ID)</b> Peter Mitchell (54814)		
18347	I am writing in opposition to copper-nickel mining proposed for the arrowhead region of northern Minnesota. The region, so beautiful, must be preserved for future generations free of harm by pollution that ALWAYS accompanies mining.	LU04
<b>Sender Name (Submission ID)</b> Peter Molenda (44668)		
6944	creating a limited number of local jobs for a limited period of time, is not nearly enough to counterbalance the long term negative environmental impact such mining would have on that area.	SO01
6945	such mining would probably have a detrimental effect on the tourist trade that Northern Minnesota relies upon to help keep the area economically viable for those who currently live there.	SO02
<b>Sender Name (Submission ID)</b> Peter Murphy (42475)		
7070	It would [be] extremely reckless to allow a mine such as this to threaten the pristine environment of the North Shore.	WR195
7073	There won't even be that many jobs in automated operations like this.	SO02
<b>Sender Name (Submission ID)</b> Peter Oja (38356)		
13664	I know that area is in a great need for jobs and this provides that opportunity. I know that with mining there is negatives, but in this case I feel that the positives are what we should concentrate on.	SO10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Peter Pfarr (16080)		
11043	We need to have assurances in place to safeguard our environment. There needs to be contingencies and guaranteed funding to provide the resources needed to properly fund cleanup and monitoring.	FIN05, FIN11
<b>Sender Name (Submission ID)</b> Peter Schurke (48121)		
12896	At the LTV tailings basin manganese is already far above Minnesota's health risk limit, but that is also expected to increase by 45 percent. All of this is in the SDEIS pg 169 of Chapter 5.	WR204
12899	Why has there not been an analysis of this dangerous pollution to the drinking wells of Minnesotan citizens just downstream from the tailings basin? What is protecting the water that my family, friends, and I drink, year round day after day?	WR041, WR042
17351	I am very concerned about the effects this proposed Copper Sulfide mining project will have on the waters near my home.(...) It is expected that lead in PolyMet's tailing basin seeps will be 5 times or more higher in groundwater than the levels currently are.	WR059
<b>Sender Name (Submission ID)</b> Peter Seppanen (11621)		
3305	I am in full support of this project and all the jobs it will bring to the Iron Range. This project can and will be done safely with preserving the environment.	SO10
3305	I am in full support of this project and all the jobs it will bring to the Iron Range. This project can and will be done safely with preserving the environment.	SO10
<b>Sender Name (Submission ID)</b> Peter Tanghe (10934)		
630	Any potential benefits of this project, which will be largely captured by the PolyMet corporation, simply do not justify potential environmental impacts whose cost will be borne by the residents of Minnesota as well as the surrounding US and Canadian regions.	SO01
632	I am concerned that the changes to air quality and the watershed do not seem to have enough safeguards to protect myself, my neighbors and our natural resources.	AIR11, WR128, WR130
19973	The content of the PolyMet SDEIS causes me extreme concern that the proposed project would add dramatically and catastrophically to pollution and habitat destruction in the already polluted and compromised area in which the project would take place, as well in the entire watershed, including the St. Louis River, its estuary, and the waters of Lake Superior. I believe the project would adversely affect worker health, human health in general, wildlife (including endangered lynx and threatened moose, among many others), and plan life (including wild rice sacred to native peoples – and a sensitive indicator species when it comes to water pollution).	GEN03
<b>Sender Name (Submission ID)</b> Peter Thibault (54137)		
16033	I don't believe that PolyMet's project design and controls will keep the environment safe.	PD01
<b>Sender Name (Submission ID)</b> Peter Thompson (54653)		
17977	The alternative of an underground mine has received inadequate consideration in the NorthMet SDEIS.	ALT01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Peter Thompson (54653)		
17978	The only reason given for the failure to consider and explore the underground mine as an alternative was because an underground mine was not "economically feasible." SDEIS, Section 3 .2.3 .4.1. This rationale is invalid and directly contrary to the dictates of Minn. Stat. Sec. 116D.02, subd. 4. The SDEIS should be remanded to the Agencies for thorough legal consideration of the underground mine using rigorous exploration and objective evaluation of the alternative.	ALT01
<b>Sender Name (Submission ID)</b> Peter Uzelac (54900)		
18857	I am against sulfide mining in MN because I do believe that long term pollution will still be problem with acid water and toxic metals in our water and no clean up effort will ever return the area back to its original state.	WR195
18858	Also noise will be a never ending problem.	N01
<b>Sender Name (Submission ID)</b> pham thihoa (40879)		
13961	I'd like to express strong opposition to any mining permits in the vicinity of the BCWA...Minnesota is precious because of its waters...Please protect the waters and the living species that depend on waters, most of all us.	PER35
<b>Sender Name (Submission ID)</b> pharmbw tds.net (46569)		
9134	I believe there is no way that PolyMet can mine for 25-35 years and then guarantee there will be funds available to cleanup any pollution spill up to 500 years in the future.	FIN01
<b>Sender Name (Submission ID)</b> Phil Bergh (42706)		
8593	I never heard of a company cleaning up after themselves for 500 years. Has any company in the world ever lasted that long? This sounds like a bad deal. It'll be the taxpayer who will have this albatross wrapped around their necks.	FIN01
18804	PolyMet says it has a "reverse osmosis" that will solve all our problems. They aren't saying what it is or how it works nor does the media ask these key questions.	WR143
18807	[PolyMet] will get in, make their billions, and then get out or go defunct. Why should they be responsible? I've never heard of other Superfund sites taking such a long time to clean up. It'll be on the backs of the taxpayers.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Phil Hogan (45263)		
9106	what happens to the pollutant contained in the final concentrate stream in which the total amount of pollutant has been concentrated but not reduced, . How is the concentrate stream processed? In what form will it be? How much will there be?	WR143, WR145
<b>Sender Name (Submission ID)</b> Phil Larson (42998)		
9238	Purpose and Need: ...35% of apparent [copper] demand is met by imports...In the case of nickel...there is no domestic mine supply and our net import reliance is 49%. In the case of platinum and palladium, our net import reliance is 91% and 54%, respectively.	NEPA01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Phil Larson (42998)	
9239	Purpose and Need: As a matter of policy, the US government has promoted development of renewable energy technologies to promote energy security and reduce greenhouse gas emissions. As a general rule, renewable energy technologies are more intensive in their use of metals such as copper and nickel.	NEPA01
9241	Copper prices in 2012 were just under \$8000 per metric tonne, giving the apparent 600,000 metric tonnes of net copper imports a value of around \$4.8 billion. This accounted for little more than half a percent of the \$735.3 billion trade deficit.	NEPA01
9242	...the NorthMet project is projected to produce 72 million pounds of copper, 15 million pounds of nickel, and 106,000 ounces of palladium, platinum, and gold per year... NorthMet will therefore meet only 5.5%, 6.2%, and 1.5% of our net import reliance on copper, nickel, and platinum group elements, respectively. The modest influence the NorthMet project will have on our import reliance for these critical minerals speaks ... to magnitude of our dependence...Even the relatively small increment of production NorthMet entails will measurably improve our trade deficit, increase economic activity, increase our diplomatic influence, and improve our national security.	NEPA01
9245	Geology of the Mine Site: The observation is made that “the surficial till is a heterogeneous and laterally discontinuous zone with a composition ranging from very dense clay to well-sorted sand.” This statement seems to use the term ‘heterogeneous’ to refer to the poor sorting and wide particle size range of what is likely a relatively homogeneous till. The lateral discontinuity in the till referred to in this case is likely its thickness, not its sedimentological heterogeneity. Here, and elsewhere in the document, well-defined, consistent, and judicious application of the terms ‘heterogeneous’ and ‘homogeneous’ when describing tills is advised.	EDIT01
9259	The analysis of greenhouse gas emissions for the NorthMet project apparently fails to consider the net positive effect on global greenhouse gas emissions reduction in import reliance for copper and nickel will produce.	AIR01
9271	Groundwater drawdown adjacent to the Canisteo Mine is cited as a predictive analog to groundwater drawdown adjacent to the Mine Site. This analog approach is likely to significantly overestimate the extent of pit drawdown [because of] the thicker drift and higher hydraulic conductivity bedrock at the Canisteo Mine site relative to the NorthMet Mine Site...A better analog ...may be drawdown associated with the Soudan Mine in Soudan Underground Mine State Park [which is] overlain by till similar in thickness and composition to that found at the NorthMet Mine Site.	WR023, WR119
9272	Reference is made on page 4-328 to the potential unreliability of employment and wage data reported by the U.S. Census Bureau data for 2009. It needs to be emphasized how anomalous mining employment in St. Louis County was during this year; the Minnesota iron mining industry produced the lowest amount of iron ore in 2009 since 1937...updating with more recent Census data is advisable.	SO04
9276	It is important to note that the Powers study was commissioned by two advocacy groups – Minnesota Center for Environmental Advocacy and the Sierra Club – with the specific intention of making an economic case against further mining development in Minnesota	SO04
13902	However, there is also an aspect of the need of the project...PolyMet is projected to produce -- just doing the calculations on my calculator, so correct me if I'm wrong; but they are projected to produce about 72 million pounds of copper a year. The number of people who have come into our country in the last 10 years, more than -- will more than consume the additional production that PolyMet will bring to the market.	NEPA05

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Phil Larson (42998)

15243 GlossaryThe glossary contains a number terms whose definition is inconsistent with standard usage. These include:Drift: Material such as sand, clay, gravel, and rocks transported and deposited by a glacier or glacial process.Glacial deposit: A collection of various-sized rocks and debris that is deposited by a glacier as it advances or recedes across a landscape. There are many types of deposits, including till, drift, erratics, and moraines. (Note: sediment deposits of glacial origin are termed ‘drift’, less commonly ‘glacial drift’. Erratics refers to individual clasts, while ‘moraines’ refer to a landform, not a sediment type.)Glacial till: Direct glacial deposits of rocks, gravel, or boulders that are unsorted and unstratified. (Note: all till is by definition glacial in origin; there is no need to include the modifier ‘glacial’.)Surficial glacial deposit: A collection of various sized rocks and debris deposited by glacial activity that is left on the earth’s surface after the glacier recedes. (Note: ‘surficial glacial deposit’ is not used in the text of the SDEIS.)Till: see Glacial tillThese definitions should be revised to conform to accepted usage. The following definitions are taken from the Glossary of Geology (5th Edition) :Drift A general term applied to all rock material (clay, silt, sand, gravel, boulders) transported by a glacier and deposited directly by or from the ice, or by running water emanating from a glacier. Drift includes unstratified material (till) that forms moraines, and stratified deposits that form outwash plains, eskers, kames, varves, fluvioglacial sediments, etc.Outwash Stratified detritus (chiefly sand and gravel) removed or "washed out" from a glacier by meltwater streams and deposited in front of or beyond the end moraine or the margin of an active glacier. The coarser material usually is deposited nearer to the ice.Till Dominantly unsorted and unstratified drift, generally unconsolidated, deposited directly by and underneath a glacier without subsequent reworking by meltwater, and consisting of a heterogeneous mixture of clay, silt, sand, gravel, and boulders ranging widely in size and shape. In addition to adapting these definitions, I recommend that the definition of ‘surficial aquifer’ be modified to indicate that the aquifer is hosted by unconsolidated sediment, including drift.

EDIT01

*Alphabetical by sender's first name*

**Comment ID    Comment Text**

**Theme Codes**

**Sender Name (Submission ID)**    Phil Larson (42998)

15244 Notes on NomenclatureThe text of the SDEIS contains a number of inconsistent usages of terminology:•The text mentions ‘glacial till’ 33 times, and ‘till’ alone 29 times. ‘Till’ should be used in all cases.•The text mentions ‘glacial drift’ 6 times, and ‘drift’ alone 7 times. ‘Drift’ should be used in all these cases.•The glossary does not define ‘outwash’. The text mentions ‘glacial outwash’ 5 times, and ‘outwash alone 3 times. ‘Outwash’ should be used in all these cases.•The text uses the term ‘surficial deposits’ 25 times, although the term is not defined in the glossary. The usage suggests that this refers to all unconsolidated sediments lying above bedrock, including drift (till and outwash), peat, and other sediment.In a number of cases, usage of the term ‘till’ is confused or inconsistent:•Page 4-95 – “several soil borings into the surficial till identified the composition as layers of clay and sand, plus cobbles and boulders”. In this case ‘till’ is the sediment type, and by definition contains particle sizes ranging from clay to boulders.•Page 4-151 – “The depth of soil and till overlying the bedrock”.•Page 4-367 – “areas of glacial till (typically silty sand)”. Either the sediment is till, or silty sand. By definition it cannot be both.•Page 4-376 - “native till material that ranges from clay to gravel”. In this case ‘till’ is the sediment type and by definition contains particle sizes ranging from clay to gravel.In several instances, the term ‘till soil’ is used. Till is a sediment type. A soil may develop at the surface of a till deposit, however the entire thickness of the till is not soil. ‘Till’ alone suffices in these instances.In a number of other cases, convoluted sediment descriptions are given, when it is likely the sediment is simply till. In these cases, the non-specific and complex description gives the impression of extreme heterogeneity in sediment deposits, rather than a relatively homogeneous till deposit. For example:•Page 4-45 – “The overlying surficial sediments at the Mine Site are poorly sorted and range from very dense clay to well-sorted sand with boulders and cobbles”. This sediment is highly likely to be simply till.The term ‘overburden’ as defined in the glossary appears to be inconsistently applied. Although it is defined as all unconsolidated sediment and waste rock overlying the mineral deposit, in most places it appears to refer to only the unconsolidated material overlying bedrock. For example:•Page 3-15 – “overburden and waste rock”•Page 3-17 – “overburden and waste rock”•Page 3-37 – “use of waste rock, overburden, and peat”In other cases, ‘overburden’ clearly refers to only the unconsolidated sediment overlying bedrock. For example:•Page 3-44 – “Three types of overburden are present at the site: unsaturated overburden, saturated overburden, and peat.”The term ‘soil’ is not defined in the glossary. In most cases, the term is used in a manner referring to unconsolidated materials at the surface, containing organic matter, and capable of supporting life. In other cases, it appears to be used in a geotechnical sense, referring to unconsolidated sediment overlying bedrock, equivalent to usage of the term ‘overburden’. In these cases, the term appears to be applied to the entire thickness of drift or till overlying bedrock, similar to usage of ‘surficial deposits’ noted above. For example, •Page 4-149 – “lateral flow that is either on the surface or within the subsurface soil.” Soil used in this sense refers to either drift or the surficial aquifer.•Page 5-201 – “mercury stored in rock, soil, peat, and vegetation.” Soil used in this sense refers to drift.•Page 5-227 – “The Mine Site contains localized heterogeneous vertical and horizontal hydraulic conductivities within each soil unit.” Soil used in this sense refers to drift.A clear distinction need to be made between soil referring to the shallow surface layer containing or

EDIT01

15260 Note on usage of Unified Soils Classification System (ASTM D 2487-83)The USCS was used to describe unconsolidated sediments recovered from boreholes drilled in support of the NorthMet Project. It is important to note that this system is designed to best describe and name relatively well-sorted unconsolidated sediments with a unimodal particle size distribution. As such, poorly sorted sediments with potentially multimodal particle size distributions (e.g. till) are not well-described using this classification. Relatively minor changes in the relative proportions of clay-silt-sand-pebble-boulder may lead to application of multiple group symbols and the perception of significant heterogeneity within what is in actuality a relatively homogeneous till sequence. In cases where USGS group symbols and nomenclature are utilized in the SDEIS and supporting documents, it is advisable that sediment identified as till be explicitly name as such, e.g. GC (till).

EDIT01

15268 ...extensive drilling by Duluth Metals and its joint venture Twin Metals Minnesota of the Maturi Deposit in the SKI has demonstrated ...no evidence of the extensive faulting and fracturing ...[therefore] Groundwater flow within faulted and fractured bedrock is likely to be minimal at the NorthMet Project Mine and Plant sites.

WR190

**Sender Name (Submission ID)**    Phil Ledermann (10702)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Phil Ledermann (10702)		
590	How can an accurate prediction of long term impact be made when the science does not seem sound.	PD29
1466	Please reject the PolyMet NorthMet SDEIS as inadequate and require the study to be re-done with more realistic and recent data.	NEPA04
3606	Please reject the PolyMet NorthMet SDEIS as inadequate and require the study to be re-done with more realistic and recent data.	NEPA09
16236	I am very concerned that long term impacts are addressed now not 20-30 years from now. On the other hand I understand the need to gather materials for our industries and provide good jobs.	SO10
16237	the SDEIS does not sound well done. How can an accurate prediction of long term impact be made when the science does not seem sound.	PD01
<b>Sender Name (Submission ID)</b> Phil Martens (42429)		
6769	Even with substantial 'protections' in place and 'allowable and non-harmful levels' of the pollution they will inevitably produce, it only takes one accident to damage the lake and surrounding areas for hundreds even thousands of years.	PD22
6770	It is in the welfare of all the animals, the health of the boundary waters and the ever growing tourism industry to that area that you block PolyMet!	SO02
16758	In a state known for its lakes we already have countless that are polluted and damaged by chemicals to an unacceptable level. PolyMet will do the same I have little doubt.	WR070
<b>Sender Name (Submission ID)</b> Philip Hult (31985)		
12020	An open pit sulfide mine will release toxic metals into our rivers and groundwater for hundreds of years -- long after the products are spent and buried in landfills.	WR115
<b>Sender Name (Submission ID)</b> Philip Spensley (40206)		
6650	Our water supply nationally and internationally is already under threat from pollution from all quarters. Let's not add to the problem yet again in the name of the economy or providing jobs.	SO02
<b>Sender Name (Submission ID)</b> Philipp Gross (47269)		
9277	How much money do they put aside for the clean up and if any where are the estimates that this money is enough for the worst case scenario cleanup needs? What does long term water treatment mean, 10 yr, 50 yr, 500 yr?	FIN05
9280	Besides the point that I do not think that this is even close to the number of jobs that would justify the risk I would like to see what those jobs are, how well they are getting paid (each position)?	SO01
9281	If the argument is that we need these minerals for survival/ green energy etc. should we not figure out a way how Minnesotans profit the most of these minerals. And maybe this means that the operation should be run by a non-for profit company or even the state and all the theoretical "profit" should be put in a trust fund until clean up is completed.	FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Philipp Gross (47269)		
9282	I would like to propose that a decision like this (permit or not) should be made by the majority in a voting procedure. In addition to this we need to make sure that the voters are informed about pros and cons of the issue.	PER01
11580	My concern is that all this is just based on modelling software and does not state any real world experiences! Who ran those models and how reliable are they?	WR189
11582	How is Polymet held responsible to the long term water treatment?	FIN01
11585	Is it not true that Polymet has formed recently and actually has not earned any money yet and is likely to file bankruptcy after the proposed mine site closes (no more income)?	FIN01
<b>Sender Name (Submission ID)</b> Phillip A Lermon (7447)		
772	This proposal is not economically feasible when the future costs are added to the picture.	SO07
<b>Sender Name (Submission ID)</b> Pho Lay Thao (54207)		
17643	Mining near it will be bad because the water will be contaminated with acid and will kill all the animals there.	WR113
<b>Sender Name (Submission ID)</b> Phyllis Annoni (54707)		
17756	It is discouraging to find that governmental agencies which: we depend on to protect our waters are encouraging a sulfide mining project that will seep pollutants into the St. Louis River watershed, leading into Lake Superior.	GEN01
17757	This proposed mining project will require water treatment for hundreds of years in northern Minnesota, while giving the mining company tax breaks, at the expense of those living in this area. Our taxes should never be used to support a business that pollutes anything! !	SO02
17758	Folks in the area do surely need jobs, but this proposed sulfide mine is only offering 300+ jobs for about 20 years, and many of those jobs will be construction type, with the actual mining jobs being much lower as modern technology improves. It would be more useful to use tax dollars to help Minnesotans create businesses that are sustainable and would benefit the areas economy for many, many years to come.	SO01
17759	The proposed mining operation would also put asbestos-like materials into the air leading to exposure to cancer possibilities to employees and the local community. Has this been considered in your plans? Otherwise, a study of health risks needs to be required in the supplemental draft.	HU05
17760	It is also unclear who will pay for the ongoing testing and water treatment after the closure of the proposed PolyMet Mining Project. In the news we hear about mining sites failing and pollution ending up in communities fresh water supply. When this proposed mine closes, it would require up to 500 years of testing and water treatment. It is also a tremendous concern of mine that the taxpayers in Minnesota are going to be paying this entire bill. The long-term costs of this mine operation and closure must be added to the cost benefit analysis for the plan.	FIN01, FIN05, FIN10
17761	HAS ANYONE LOOKED INTO PUTTING THIS MINE UNDERGROUND!	ALT01
17762	PolyMets Sulfide Mine Project must be rejected and needs to be rewritten to include all of the negative long-term costs and health impacts from an open-pitsulfide mine.	NEPA08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Phyllis Mead (11593)		
3255	To sacrifice even the possibility of water degradation in exchange for a foreign company's opportunity to rake in money is idiocy. The "promise" of jobs is a poor trade for guaranteed environmental impact.	SO01, WR195
3255	To sacrifice even the possibility of water degradation in exchange for a foreign company's opportunity to rake in money is idiocy. The "promise" of jobs is a poor trade for guaranteed environmental impact.	VEG04, WI02, WR001, WR156
<b>Sender Name (Submission ID)</b> Phyllis Saliin (45043)		
7145	I believe that [NorthMet Mine] will have an extremely detrimental and long lasting negative effect on the environment and to the overall health of people	HU03
7147	The pollution it would bring to land and water would affect many generations to come.	SO02, WR195
7151	The damage that would occur would far outweigh any jobs that would be generated. ... Minnesota also brings in a substantial income from tourism and that would be in jeopardy.	SO01
7152	clean up of toxins would be a huge burden to bear financially.	FIN01
7159	We need to make sure that the health of the people and of the natural environment in our state are our priority.	HU03
<b>Sender Name (Submission ID)</b> pieplace@boreal.org (47636)		
7657	Would you be able to tell me what permitting requirements would need to be changed in order to stop PolyMet and others from mining in Minnesota. Also, who would be able to make the changes (Legislature, a State government committee, DNR, local government?).	GEN01
<b>Sender Name (Submission ID)</b> Piper Donlin (39572)		
6817	the universal rights of both human and non-human inhabitants [of Minnesota] are being trampled to serve the property/profit interests of the rich international corporations who have lied and bribed their way into "legal personhood" and political control in Minnesota.	SO02
13747	Polymet, Northmet and their cohorts will be long gone by the year 2040 or so, without intention or means to pay for the superfund site they leave behind for us...Superfund cleanup to the tune of billions of dollars for hundreds of years.	FIN01
13748	[The project will cause] Water pollution [and will have negative] Impacts to three watersheds.	WR111
13749	[The project will lead to] Loss of pristine wetlands and forest.	VEG03
13750	[The project will have negative] Impacts on wildlife.	WI01
13751	[The project will contribute to] Climate change due to carbon emissions.	AIR01
13752	[The project will cause] Serious health threats to people including cancers and respiratory ailments..Mercury poisoning- people who live in the Superior Basin are already exhibiting dangerous levels.	HU03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Piper Donlin (39572)		
13753	[The project will cause] Loss of public lands...Devastating aesthetic impacts...Loss of wilderness.	LU06
13754	[The project will result in] Loss of wilderness jobs- thousands of people depend on ecology and wilderness for their wages (compared to three hundred jobs that will last a couple of decades—and then where will theminers go when the last traces of mineral are gone?)	SO02
13755	A strange lack of any cost/benefit analysis [in the SDEIS] is a dangerous red flag.	SO01
<b>Sender Name (Submission ID)</b> pmetcalf@tcq.net (12)		
33	If they are going to use water that feeds into Lake Vermilion for their production or manufacturing uses, that may reduce the lake level.	WR081
34	if the company removes water out of the aquifer (or river) and cleans it then puts it back in, my concern would be if they put back less than they took out.	WR185
299	In the Fall, Lake Vermilion level gets very low, and dangerous for boating in some areas. ... If water is removed from any of Lake Vermilions watershed, river sources, this may affect the level of the lake, and potentially very negatively in the Fall	WR081
<b>Sender Name (Submission ID)</b> PolyMet (47832)		
3480	The third paragraph states that the United States Army Corps of Engineers (“USACE”) and the Minnesota Department of Natural Resources (“MDNR”) studied “the original NorthMet Project Proposed Action” between 2005 and 2009. Use of the defined term “NorthMet Project Proposed Action” in this context is confusing because the proposed action studied in the Draft EIS was substantially different than the proposed action being studied in the SDEIS. To avoid confusion over the nature of the alternatives studied in the two documents, PolyMet recommends changing the language to state that “Between 2005 and 2009, the USACE and MDNR evaluated PolyMet’s original mining proposal.”	EDIT01
3481	The terms “NorthMet Mining Project” and “Land Exchange,” rather than the defined terms “NorthMet Project Proposed Action” and “Land Exchange Proposed Action,” are used on these pages. To avoid confusion, PolyMet recommends consistent use of the defined terms.	EDIT01
3482	Under the heading “Cooperating Agencies,” the SDEIS describes USEPA’s responsibilities to review and comment on an EIS under Section 309 of the Clean Air Act. USEPA does this for all Environmental Impact Statements, even when it is not acting as a cooperating agency. USEPA has formally participated in the preparation of the current SDEIS as a cooperating agency, which is not the same thing as fulfilling its responsibilities under CAA Section 309. PolyMet recommends clarifying this point by adding a sentence to this paragraph that explicitly notes EPA’s status as a cooperating agency.	EDIT01
3528	The first sentence on this page indicates that completion of mining in the East Pit will occur in “approximately year 11” after the start of mining. By contrast, the first sentence in the paragraph following the three bullet points states that mining in the East Pit will end “by year 11” after the start of mining. The second statement is inaccurate. Mining in the East Pit will end approximately 11 years after mining, but not necessarily by year 11.	EDIT01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3529	In the last paragraph of the Mining Operations Section on page ES-23, the SDEIS defines “process water” in connection with the Mine Site. On page ES-24, the SDEIS refers to “Plant Site process water.” To clarify and define terms, page ES-23 should be changed to refer to “Mine Site process water,” and “Plant Site process water” should be defined by adding a sentence (see bold text below) to the last paragraph of the Processing Operations Section on page ES-23: “Water seepage from the Tailings Basin would be collected by the groundwater containment system and sent to either the Tailings Basin pond or the Plant Site WWTP. All other water that is collected at the Plant Site, such as water used during processing, and water that contacts the plant site facilities (collectively referred to as Plant Site process water) will also be treated at the Plant Site WWTP. Treated water would be used to augment flows in the streams that would otherwise receive reduced flows because of the Tailings Basin groundwater containment system.”	EDIT01
3531	PolyMet recommends that the Executive Summary explicitly state that aluminum concentrations in the water, or the lowering of the hardness caused by storm water, represent natural or background concentrations and/or are the result of natural processes, not process water from the NorthMet Project.	EDIT01
3532	The SDEIS indicates that the NorthMet Project could potentially “affect water quality by increasing solute concentrations above Class 2B (aquatic life) standards.” This appears to refer to the aluminum and lead exceedances discussed earlier in the Executive Summary. As explained in Comment 6 above, PolyMet recommends that the Executive Summary explicitly state that any such exceedances would be the result of background and/or naturally occurring concentrations or processes, not process water from the NorthMet project.	EDIT01
3540	The second full paragraph beginning with the phrase “natural resources” does not accurately summarize the discussion of cultural resources in the SDEIS. PolyMet recommends that the paragraph be replaced with the following: “Cultural resources under NEPA can also include natural resources of cultural importance to the Bands. The Co-lead agencies have considered the effects of the Proposed Action on such resources, including 1854 Treaty resources, under NEPA. The Co-lead agencies have concluded that, while the Proposed Action has the potential to have effects on 1854 Treaty resources, construction and operation of the Proposed Action is not likely to significantly reduce overall availability of 1854 Treaty resources that are typically part of subsistence activities in the 1854 Ceded Territory.”	EDIT01
3551	In Table 1, the Land Use effects of the Proposed Connected Actions are described in the first bullet point as “[n]o effects on land use that would require changes in ordinances or comprehensive forest plans.” This language is confusing, given that the NorthMet Project Proposed Action would involve the construction of an open pit mine. PolyMet proposes changing this language to say: “Changes in land use would occur after the Land Exchange Proposed Action and would not require changes in ordinances or comprehensive forest plans.”	EDIT01
3555	Although the co-lead agencies have concluded that a segment of the Beaver Bay to Lake Vermilion Trail is an eligible historic property, the SDEIS alternates between referring to the “BBLV Trail” and the “BBLV Trail Segment.” To ensure consistency with the co-leads’ eligibility determination, PolyMet recommends that the agencies consistently refer to the property as the “BBLV Trail Segment.” This comment applies throughout all Cultural Resources sections in the SDEIS.	EDIT01
3556	PolyMet recommends that the section of the chart dealing with “Cultural Resources & Historic Properties” be referred to simply as “Cultural Resources” since that term is inclusive of historic properties.	EDIT01
3559	The second sentence in section 1.4.5, “Financial Assurance,” explains that financial assurance instruments covering the estimated costs of reclamation must be submitted to and approved by the MDNR. As discussed elsewhere in the SDEIS, Minnesota nonferrous mining rules also require that that financial assurance estimates be updated annually. PolyMet recommends noting that fact here.	FIN01, FIN08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3561	The first sentence in Section 2.3.2.2, “Revised Proposed Action and Alternatives,” states that the NorthMet Project Proposed Action has “changed greatly since the release of the DEIS.” The use of the phrase “changed greatly” is ambiguous. The modifications to the proposal studied in the DEIS are described in detail elsewhere in the SDEIS. PolyMet accordingly recommends revising the first sentence in Section 2.3.2.2 to read: “As a result of input from the public, Cooperating Agencies, and the Colead Agencies via the workgroups, and additional modeling and impact analyses, PolyMet’s mining proposal has been modified since the release of the DEIS.”	EDIT01
3564	The second bullet point in Section 2.4.2, “Adequacy Determination/Records of Decision,” states that the USACE will issue a ROD “[f]ollowing a 30-day comment period.” Under NEPA, the 30-day period following issuance of a Final EIS is not a “comment period.” Rather, under 40 C.F.R. § 1506.10(b), agencies are simply prohibited from making a decision on the proposed action until 90 days after publication of a notice of availability for a draft EIS, or 30 days after publication of a notice of availability for a final EIS. The Council on Environmental Quality regulations do not require agencies to solicit comments on the FEIS during this 30-day waiting period.	EDIT01
3567	The first bullet on this page does not specify which permits would be transferred to PolyMet. The Minnesota Pollution Control Agency has stated that the NPDES permit for the Tailings Basin would not be transferred. Instead, a new permit would be issued.	EDIT01
3568	The south seepage management system is not mentioned at all in this section. This is a relatively new engineering feature that was constructed as part of the Consent Decree. It should be listed as part of the existing infrastructure, since it is already in place.	PD13
3569	The fifth bullet on this page refers to temporary features that will be removed and reclaimed before or at closure, including roads. It is important to note, however, that not all of the roads will be removed or reclaimed, as some are needed for the post-closure period.	PD36
3570	The fourth bullet on this page refers to a “bentonite layer on top of the Tailings Basin to restrict oxygen and water infiltration with pond.” PolyMet recommends clarifying that there is a bentonite layer on the outer dam slopes during construction and that, during closure, a bentonite layer will be added to the top of the Tailings Basin. As currently written, the reader may incorrectly assume that a bentonite layer will be added at construction, below the new tailings.	EDIT01
3572	Reclamation of the Category 1 Stockpile is scheduled to begin in Year 14. As currently written, reclamation of the Category 1 Stockpile is included only in Years 16-20. It should also be included in Years 11-16.	EDIT01
3575	The movement of waste rock from the Category 2/3 stockpile to the pit will be completed by the end of operations (Year 20). As currently written, the SDEIS incorrectly indicates that this activity will occur after year 20.	EDIT01
3576	The transmission lines are not shown correctly on these figures [Figures 3.2-5 through 3.2-9]. The figures should show a connection between the transmission line south of the Central Pit and the line south of the Category 1 stockpile.	EDIT01
3577	[On Figure 3.2-9] The process water piping from the Category 1 Stockpile should connect to the WWTF. The drainage from the Category 1 Stockpile Groundwater Containment System will be treated at the WWTF.	PD15
3579	This table [3.2-7] is titled “Key Characteristics of Overburden and Waste Rock Management.” However, it does not include any information about overburden management. The Category 2/3 and 4 stockpiles will be used to store saturated overburden; however, there is no indication of this in these sections and the “Maximum Volume” listed for these stockpiles only includes the volume of waste rock, not the maximum volume of the stockpiles. The peat and unsaturated overburden will be stored in the Overburden Storage and Laydown Area (OSLA), which is also not included in this table. Recommend either changing the table title to “Key Characteristics of Waste Rock Management” or update the table to include maximum capacity of the stockpiles for overburden storage, as listed in the Rock and Overburden Management Plan (v5) Section 6.2 (Adaptive Management) and information about the OSLA.	PD15

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3584	The Category 1 Stockpile category [on Table 3.2-7] shows that the maximum footprint of 526 acres is reached in year 6. However, the Category 1 Stockpile will reach the maximum footprint of 526 acres in Year 21, after it is reclaimed for the cover. The stockpile footprint is 508 acres at the end of Year 6, when the footprint is built with slopes at an angle of repose. The stockpile is regraded to a 3.5:1 slope prior to placement of the stockpile cover, which makes the final footprint 526 acres in Year 21.	PD16
3585	The Phases of Development section for the Category 4 Stockpile category [on Table 3.2-7] shows waste from the Category 4 Stockpile being transferred to the East Pit in Years 11-20. However, the Category 4 Stockpile will be moved completely by Year 11 to allow for mining of the Central Pit to start that same year.	PD15
3587	The second paragraph on this page states that unsaturated overburden use would require MDNR approval. This is not accurate. Unsaturated overburden should not require approval from the MDNR.	EDIT01
3588	The fourth sentence of the third paragraph on this page should state: "Applications for saturated overburden would include those where water contacting the construction material would be collected or drained to the mine pits, where it would be placed back below the water table or above a membrane liner system." There should be an 'or' in this sentence.	EDIT01
3590	For clarity, PolyMet suggests editing the second paragraph and the beginning of the third paragraph in this section as follows: "Figure 3.2-11 shows the containment system that would consist of a cutoff wall (a low permeability hydraulic barrier extending down to bedrock) combined with a drainage collection system surrounding the perimeter of the stockpile near its toe. The cutoff wall would have a hydraulic conductivity specification of no more than $1 \times 10^{-5}$ centimeters per second (cm/sec)."	EDIT01
3591	In the first paragraph, the description of the Category 1 Stockpile groundwater containment system does not adequately describe the sumps. There are two sumps: one at the northeast corner and one on the south side, along the center of the stockpile. To more accurately describe the system, PolyMet recommends making the following changes: "From the sumps, it would be pumped to the WWTF."	PD16
3592	The last sentence in the paragraph under the heading "Reclamation Planning" correctly states that PolyMet will submit an annual Contingency Reclamation Plan pursuant to Minnesota Rules 6132.1300. In the interest of completeness, the paragraph should also note that the rules require PolyMet to provide financial assurance sufficient to carry out that reclamation plan.	EDIT01
3594	The second paragraph inaccurately refers to disposal of material (remaining ore and sediment from ditches and process water ponds) in the West Pit. This material would be disposed in the East Pit, as described in Section 2.1.2 of the Reclamation Plan (v3) (Rail Transfer Hopper).	EDIT01
3625	The fifth sentence of the second paragraph on this page refers to the overburden sloping as "height-to-vertical ratio of 2.5:1." Height and vertical mean the same thing (i.e., both refer to the vertical plane). PolyMet suggests changing this to read either "horizontal-to-vertical" or "length-to-height".	EDIT01
3626	On page 3-64, the SDEIS states: "The WWTF would be upgraded to include RO treatment to achieve an effluent with a sulfate concentration of less than 10 mg/L." Similarly, the SDEIS states on page 3-123: "The WWTP would be constructed south of the Tailings Basin near the coarse-crusher and would include a RO unit designed to achieve a sulfate concentration of 10 mg/L in effluent. The design of the WWTP could be adjusted to accommodate varying influent streams and discharge requirements." It is not clear when reading the two statements copied above that the water treatment goal for the effluent sulfate concentration of 10 mg/L is based on meeting the current 10 mg/L sulfate standard for waters used for the production of wild rice (Minnesota Rule 7050.0224, Class 4A water quality standard). To clarify, and because that standard is subject to adjustment, the statement "to achieve an effluent sulfate concentration that meets the sulfate standard for waters used for the production of wild rice" should be used instead of "to achieve an effluent with a sulfate concentration of less than 10 mg/L."	EDIT01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3627	The last sentence inaccurately states state the Category 4 Stockpile would be completely removed by year 12 to allow mining in the Central Pit. The Central Pit mining begins in Year 11, as stated earlier in the SDEIS (such as Table 3.2-4). Therefore, the Category 4 Stockpile would be completely removed by year 11.	EDIT01
3628	The second paragraph describes reclamation of the Ore Surge Pile as "...any remaining material would be relocated to the West Pit after operations cease." However, no material will be disposed of in the West Pit. As described in Section 7.2.2 of the Rock and Overburden Management Plan (v5), any material remaining in the Ore Surge Pile at the end of operations will be transported to the Process Plant for processing or disposed of in the East Pit.	EDIT01
3629	The fifth paragraph on this page, which lists all ponds that would be either filled or converted to wetlands, should include the Rail Transfer Hopper Pond.	EDIT01
3630	The fourth paragraph under the heading "Water Management" states that "[b]ased on the current GoldSim P90 model predictions, treatment activities could be required for a minimum of 200 years at the Mine Site . . . ." This statement is inaccurate and inconsistent with the discussion of the GoldSim water quality modeling elsewhere in the SDEIS.	EDIT01
3631	This section inaccurately describes both the existing Cliffs Erie railroad and Dunka Road as being "within the Transportation and Utility Corridor (see Figure 3.2-20)." Cliffs Erie railroad actually is not within the Transportation and Utility Corridor, as Figure 3.2-20 accurately shows.	PD36, PD38
3632	The bulleted list on this page should include construction of approximately 5,750-foot connecting track between the Cliffs Erie track and the existing PolyMet track that serves the Coarse Crusher Building at the Process Plant. This new track is accurately shown on Figure 3.2-20 as a new construction "Railroad Connection," but it is not described in this section's text.	PD36
3639	The SDEIS states: "Throughout operations, the average annual makeup water drawn from Colby Lake would vary between 20 and 810 gallons per minute (gpm), with an average annual demand of 275 gpm." These numbers are inaccurate. The sentence should be revised to show a variation between 120 and 860 gallons per minute (gpm), with an average annual demand of 320 gpm. This section should also acknowledge that additional Colby Lake water would be needed for stream augmentation.	EDIT01
3640	In the second full paragraph on this page, PolyMet recommends providing additional details on the probable maximum precipitation (PMP) to make it clear that the likelihood of the emergency overflow channel being used is extremely low. PolyMet suggests editing the text to read: "Pond elevation would be controlled by pumping any excess FTB pond water to the WWTP. An emergency overflow channel would be constructed as a backup means of controlling pond elevation, but discharge from the emergency overflow is not expected. The emergency overflow is provided for protection of the dams in the rare event that freeboard within the FTB is not sufficient to contain all stormwater. Such instances have the potential to occur in the event of a probable maximum precipitation (PMP) rainfall event or some fraction thereof. PMP rainfall events are rare and such an event has a low likelihood of being experienced during the life of the basin. The PMP does not have an assigned return period, but it is usually assumed by hydrologists to be on the order of 100 million to 10 billion years. Based on extrapolation of 72-hour rainfall depth data from US Weather Bureau-Office of Hydrology Technical Paper TP 49, and the assumed return period of the PMP of 100 million years, a 1/3 PMP event could occur roughly once in 1,000 years and a 2/3 PMP could occur once in 500,000 years. On this basis, even though there is a low likelihood of overflow, it is standard practice in dam design to accommodate even low probability overflows in a manner that protects the integrity of the dams. Given the low likelihood that there would ever be flow in the emergency overflow channel, it is not considered in the impact analysis."	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3641	The third paragraph in Section 3.2.2.3.12, “Reclamation and Long-term Closure Management,” contains a list of “reclamation objectives” and “post-reclamation activities.” These terms are not used consistently with the applicable Minnesota Rules. Under the non-ferrous rules, there are two distinct periods during reclamation: closure and post-closure. “Closure” is a “process” that begins when mining ceases, and ends when the reclamation standards identified in the reclamation plan have been achieved. Thus, while it may be reasonable to describe “reclamation objectives” for the NorthMetProject Proposed Action, it would be more accurate to indicate that these objectives will be achieved during the closure process. “Post-closure maintenance” activities are defined in the applicable rules as activities necessary to “sustain reclamation.” Postclosure maintenance activities begin when the closure process is complete, and end when active reclamation (e.g., water treatment plants) is no longer necessary to sustain reclamation standards. Thus, the activities described in this paragraph as “postreclamation” are more accurately described as “post-closure maintenance activities.” The same comment applies to text on page 3-137.	EDIT01
3645	The first sentence of the third paragraph in Section 3.2.2.4, “Financial Assurance,” states that the engineering design and planning needed to calculate financial assurance “is typically made available during the permitting process and was not available at the time that this SDEIS was prepared.” While this statement is generally accurate, it leaves a misleading impression that something is missing from the SDEIS. The paragraph should specify that NEPA and MEPA regulations do not require a discussion of financial assurance, and that PolyMet has voluntarily provided as much information as possible at the present time.	EDIT01
3648	The first sentence in the second full, non-bulleted paragraph on this page indicates that a final Reclamation Plan and Contingency Reclamation Cost Estimate will be based on studies “finalized through permitting (pursuant to the EIS process).” This reference to permitting pursuant to the EIS process is confusing and should be clarified. PolyMet is not certain what the SDEIS is trying to convey about the relationship between the permitting and EIS processes, but it should be noted that those are separate processes and that information gathered during the EIS process will be used when agencies make permitting decisions.	EDIT01
3675	Table 3.2-16 on page 3-147 provides a comparison of DEIS and SDEIS proposed actions. The table cell corresponding to the first row/first column of the table should state that “Category 1 and 2 waste rock would be stored in a permanent lined/ soilcovered stockpile (Category 1/2 Stockpile) north of the west pit (years 1-11).” This edit makes clear that the SDEIS proposed action (described in the second column of the table as including “a geomembrane cover system”) will include a significantly improved cover system relative to the cover described in the DEIS. The third column of Table 3.2-16 should also acknowledge the other improved outcomes related to the addition of a geomembrane cover system to the Category 1 Stockpile. For example, the following additional bullet could be added to column three: “Substantial reduction of stockpile seepage volume that will need to be collected and treated at the WWTF and significant improvement in West Pit water quality in closure.”	EDIT01
3677	General comment on all Cultural Resources Sections in Chapters 4, 5 and 6. The SDEIS often references consultation with the Bands and SHPO, but fails to include PolyMet in these references. When discussing consultation under Section 106 of the NHPA, PolyMet, as the project proponent, should be identified as a consulting party and should be included in the explanation of the Section 106 process. Examples of where PolyMet should be noted/included as a consulting party include: the third to last sentence on page 4-259 (Section 4.2.8.3); the last full sentence on page 4-262 (Section 4.2.9.2.1); the second to last sentence in Section 4.2.9.2.2 on page 4-263; the second to last sentence in the second to last paragraph on page 4-264; the second to last paragraph on page 4-302; the last full paragraph on page 4-303; the third paragraph on page 4-555; the second and third paragraphs on page 5-479; the first full paragraph on page 5-482; the second to last full paragraph on page 5-483; the last paragraph on page 5-673; and the first paragraph on page 6-89.	EDIT01
3678	This table lists the mercury TMDL target date for Sabin Lake, Esquagama Lake, and Colby Lake as 2015. The target date for those water bodies is 2025. (source: MPCA 2013. Minnesota’s Final 2012 TMDL List (Section 303(d) Impaired Waters List. List approved by USEPA, July 25, 2013).	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3679	The monitored mercury concentration at PM-13 (Embarrass River) is inaccurately stated as 4.0 ng/L. In fact, PolyMet’s evaluation of the Plant Site at PM-13 used a background concentration of 3.1 ng/L. The same comment applies to Table 4.2.2-4, and the cumulative impact discussion at p. 6-33.	MERC04, MERC07
3683	The first two paragraphs of this section characterize the Tailings Basin mercury samples as “consistent with baseline levels.” This is not consistent with the later conclusion that the Tailings Basin acts as a sink for mercury. Data from locations “in and near the existing LTVSMC Tailings Basin” is actually lower than concentrations observed in the Partridge River and Embarrass River. This same comment applies to the second paragraph under “Direct release of mercury to the Embarrass river watershed from the tailings basin” in Section 5.2.2.3.3 on page 5-205.	MERC06
3685	In the first sentence of the second paragraph, the order of Duluth Complex and Partridge River intrusion should be switched. The Partridge River intrusion is part of the Duluth Complex.	EDIT01
3686	In the second sentence of the second paragraph, the use of "Mesabi Iron Range" is misleading, as it could give the impression that the Duluth Complex is in direct contact with the Biwabik Iron Formation, which is not the case. PolyMet recommends listing a geologic unit (Virginia Formation) here, rather than the more vague term "Mesabi Iron Range." In addition to the cross-section shown on Figure 3.2-10, it would be helpful to include a plan view bedrock geology map to illustrate the geometric relationships between the various bedrock units.	EDIT01
3687	The second sentence of the second full paragraph states: “Based on limited MDNR well records within the NorthMet Project area, natural groundwater levels in the glacial till vary seasonally between 3 and 10 ft bgs.” This sentence incorrectly states that the data is limited. Site-specific data on seasonal water level fluctuations is found in the Water Modeling Data Package Volume 1 – Mine Site (referenced in the SDEIS as PolyMet 2013i). PolyMet 2013i provides information on water level fluctuations observed in 24 wells completed in the glacial till at the Mine Site, some with over nine years of water level measurements. Water level fluctuation varies between wells, but the overall range observed in a single well is typically less than 4 ft.	EDIT01
3691	The range of dates cited in the bullets listed under “Baseline Groundwater Quality” is inconsistent with the groundwater data used for water quality modeling. For example, 2012 data from MW-05-02, MW-05-08, and MW-05-09 were used for the modeling. PolyMet recommends removing the dates from these bullets or revising the list so that range of dates is consistent with data used to develop Table 4.2.2-6. The range of dates for groundwater data used for the water quality modeling is as follows: -Three older wells in the surficial aquifer, sampled from March 2005 through June 2012. -21 newer wells in the surficial aquifer, installed in November 2011 – February 2012, sampled following installation through June 2012. -Five observation wells in the upper 100 ft of the bedrock, sampled from 2006 to 2010 (current SDEIS text is correct for this bullet). -Four large-diameter bedrock wells, sampled during aquifer testing in 2005 and 2006.	EDIT01
3692	It is not clear how the baseline values that are shown in Table 4.2.2-6, and used for comparison with the site-specific data, were selected. The Northeast MN baseline data appear to be derived only from the "unconfined buried Quaternary aquifer" category. However, the MPCA study also includes data for “buried Quaternary artesian aquifers” and “Quaternary water table aquifers.” Either the range shown in Table 4.2.2-6 should reflect data from all Quaternary aquifers in the MPCA report or the Final EIS should provide an explanation as to why only a certain subset of data presented is provided.	EDIT01
3693	The first paragraph describes USGS gage 04015475 as the flow record most representative of the Project area. However, this section also should acknowledge the presence of the recently-installed (for Teck American) flow gage at the Dunka Road crossing near the southeast corner of the proposed Mine Site (monitoring location PM-3/SW003) and note that, while closer to the Mine Site, the short period of record is insufficient for use in the SDEIS. This gage also should be shown on Figure 4.2.2-1.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3694	The first paragraph discusses why the use of the lowest expected baseflow is conservative with respect to impacts to surface waters. The paragraph should acknowledge that the use of a higher modeled baseflow would lead to higher recharge into groundwater, which would translate into faster solute transport times in groundwater (although not necessarily significantly varied peak concentrations). In addition, higher recharge would increase the expected groundwater inflow into the dewatered mine pits.	WR005
3695	In the first paragraph, the text describing existing upper Partridge River water quality should mention mercury and aluminum concentrations exceeding water quality standards. The text also describes dissolved oxygen at SW002 as the only consistent exceedences. PolyMet reads the term “consistent” as meaning that all samples at that location exceeded the standard, but that should be made more clear the text. The term “consistent exceedences” also appears in section 4.2.6.1.2 (page 4-220), and it should be used in the same way in that section.	EDIT01
3696	There are multiple inaccuracies in Table 4.2.2-14 that should be addressed:1. The average concentrations presented in Table 2.2.2-14 should include 2012 data. The 2012 data is included in Large Table 10 of theWater Modeling Data Package, Volume 1 – Mine Site v12.2. The number of samples at SW004a and SW004b in footnote 5 is incorrect and should also include 2012 samples. The 2012 data omitted from the number of samples is included in Large Table 10 of theWater Modeling Data Package, Volume 1 – Mine Site v12. The number of samples at SW004a and SW004b should be 12 samples for each location.3. The ranges of concentrations presented in Table 4.2.2-14 do not include the 2012 data and, therefore, may be inaccurate if maxima or minima occurred in 2012.4. The range provided for mercury concentrations (<0.0025 ng/L to 0 ng/L) is not accurate; mercury concentrations provided in theWater Modeling Data Package – Volume 1 Mine Site v10 range from <0.5 ng/L to 18.5 ng/L.	EDIT01
3697	Section 4.2.2.2.2, p. 4-77, Table 4.2.2-14, Section 4.2.2.2.2, p. 4-80, Table4.2.2-15, Section 4.2.2.2.2, p. 4-87, Table 4.2.2-18, Section 4.2.2.3.2, p. 4-123, Table 4.2.2-29, Section 4.2.2.3.2, p. 4-132, Table 4.2.2-35The minimum values in constituent concentration ranges shown in these tables are presented as less than half the minimum detection limit. Minimum concentrations (when not detected) should be presented consistently as either less than the minimum detection limit (e.g., “ < 10 mg/L”) or as a numeric value equal to half the minimum detection limit without a less than symbol (e.g., “ 5 mg/L”). If the latter approach is used, the footnotes should note that minimum values represent one half the detection limits.	EDIT01
3698	The third sentence of the fourth paragraph presents a recharge rate of 0.3 in/yr, which is inconsistent with the mean value of 0.61 in/yr used in the GoldSim model. As discussed in Sections 5.2.1.3.1 and 5.2.1.3.2 of this document, average net recharge in the Embarrass River watershed is estimated at 0.61 inches per year. A recharge rate of 0.3 in/yr represents the minimum value used in the GoldSim recharge distribution (PolyMet, 2013j; Section 5.2.1.3.2); however, it would be more appropriate to use the average value, rather than the minimum value, for the groundwater flow discussion in the SDEIS.	EDIT01
3699	Data for the Cell 1E pond should be included in this table. Cell 1E pond data are shown in Large Table 7 of the NorthMet Project Water Modeling Data Package, Volume 2 - Plant Site, Version 9, March 1, 2013.	EDIT01
3700	Regarding the first sentence, PM-13 is not “just downstream of the Heikkila Lake tributary.” It is more accurate to say PM-13 is downstream of the Unnamed Creek tributary.	EDIT01
3701	In the second sentence, it is unclear what “low flows” refers to. Based on the low flows presented in Table 4.2.2-27, PolyMet assumes the co-leads are referring to “baseflow.” This should be clarified.	EDIT01
3702	In the third paragraph, the text describing the number of samples collected at PM-12.2, PM-12.3, and PM-12.4 should include data from 2012 (2012 data appears to be included in subsequent Table 4.2.2-29). The 2012 data is included in Large Table 4 of the Water Modeling Data Package, Volume 2 – Plant Site v9.	EDIT01

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<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3703	The row for PM-12 should reflect that data was collected in 2012 at this location.	EDIT01
3704	Data for PM-11 should not be presented in Table 4.2.2-34, which is titled “Summary of Surface Water Quality Monitoring Data for the Tailings Basin Surface Seeps.” Monitoring location PM-11 is located downstream of the Tailings Basin on Unnamed Creek and is not representative of a seep. Data for PM-11 should be included in Table 4.2.2-35 (which includes tributary streams) instead.	EDIT01
3705	In the second to last sentence of the first full paragraph, it should be clarified that seepage and dead spruce trees are not a cause-and-effect relationship. There are many beaver dams in the area that likely play a role in the presence of dead spruce trees.	EDIT01
3706	The last sentence under “National Hierarchical Framework of Ecological Units” reads: “Inclusion of the One Hundred Mile Swamp would likely complete representation of prominent ELTs in LTA 212Le11.” Polymet suggests clarifying by revising this sentence is to say: “The One Hundred Mile Swamp and the two other sites surveyed provide a complete representation of the prominent ELTs present within LTA 212Le11.”	EDIT01
3707	Footnote 1 indicates it is a State standard, but the listed value is federal standard. The State 1-hr standard is 0.5 ppmv.	AIR12
3710	Regarding the entry for sulfur dioxide 3-hour, the table could be misunderstood as saying that the state and Federal secondary standard is 0.5. In fact, the state primary standard is 0.5, and state secondary state standards are as indicated by footnotes. This should be clarified in the “Standard Type” column and the footnotes.	AIR12
3711	The third sentence of the third paragraph suggests that PolyMet will submit a revised wetland permit application. In fact, PolyMet has already submitted a revised wetland permit application, which appears as “PolyMet 2013q. NorthMet Project Revised Wetland Permit Application, Version 1. Issued August 19, 2013” in the references.	EDIT01
3712	The first sentence of this section references three figures for the location of the Mine Site, in relation to Iron Lake and the Laurentian Divide. However, none of the figures show Iron Lake or the Laurentian Divide. The text should be revised to account for this or the figures should be edited to include Iron Lake. This issue occurs in other sections as well, such as the first sentence of Section 4.3.3.1.	EDIT01
3713	The third sentence of the first paragraph should cite the USACE memo (USACE, May 2013) in addition to the baseline wetland type evaluation.	EDIT01
3714	The first sentence of the third paragraph reads as though vegetation types are indicative of pre-settlement conditions. However, this is misleading, as there has been a significant amount of logging disturbance throughout the mine site.	EDIT01
3715	The new Minnesota ETSC list became effective (August 19, 2013). Botrychium pallidum (pale moonwort) is not a state-endangered species anymore. Botrychium rugulosum (St. Louis grapefern) and Eleocharis nitida (neat spikerush) are not state-threatened anymore. All three plant species are now special concern, which means they are not protected under Minnesota’s Endangered and Threatened Species Statute (MN Statute 84.0895). Sparganium glomeratum (clustered bur reed) is not a special concern species anymore, and has been removed from the Minnesota ETSC list. The text and Table 4.2.4-4 should be revised to reflect the new Minnesota ETSC list.Changes should be made throughout Section 4.2.4.2.3, including the Species Life Histories discussion, to make the information current and accurate.	VEG01
3716	General comment in Sections 4.2.4, 4.3.4, 5.2.4 and 5.3.4 Scientific and common names are used inconsistently throughout these sections. PolyMet recommends using consistent terms throughout the document for clarity.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3717	On page 4-170, there continues to be an inconsistency between the first paragraph under “Habitat Types and the first sentence of the first paragraph under “Plant Community Surveys.” The first paragraph under “Habitat Types” states that upland-conifer mixed forest types are among “the least represented cover types.” This is further supported by Table 4.2.4-1, which shows upland conifer-deciduous mixed forest as <1% of the Mine Site acreage for cover types. However, under “Plant Community Surveys”, the first sentence following Table 4.2.4-1 states that “the primary cover types at the Mine site are mixed pine-hardwood forests on the uplands.” “Mixed pine-hardwood forest” is an “upland conifer-deciduous mixed forest cover type.” PolyMet recommends resolving this inconsistency by using MIH data in the table, rather than GAP.	VEG09
3718	The first sentence of the second paragraph under “Invasive Non-native Plants” states that a survey was conducted on mine sites along the Mesabi Iron Range, and that “some species are currently present.” The text should clarify where (i.e., the Mesabi Iron Range or on the NorthMet Mine Site) these species are present.	VEG09
3719	The first paragraph text states that no invasive species inventories have been conducted within the Transportation and Utility Corridor. However, the paragraph later discusses field survey data. This could be confusing. The text should clarify that the field survey data discussed was not a quantitative survey (i.e., not an inventory), but rather is part of a broader ETSC and qualitative vegetation survey conducted by Barr.	VEG09
3720	The text on page 4-192 names three ETSC species in Transportation and Utility Corridor, but Table 4.2.4-7 only lists one of these species. This inconsistency should be resolved.	EDIT01
3722	General Comment to Sections 4.2.5, 4.3.5, 5.2.5, 5.3.5[:] PolyMet recommends either substituting the word “bat” for the term “Myotis” or adding “(bat)” after “Myotis.”	EDIT01
3723	The Canada lynx is a Minnesota special concern species effective August 19, 2013.	WI01
3724	In the fifth paragraph, the statement that lynx critical habitat “includes most of northeastern Minnesota” is imprecise. PolyMet recommends adding the clarification that the USFWS designated critical habitat does not include most of the Iron Range.	EDIT01
3725	The last sentence of the third paragraph references “forest and brush habitats” but parenthetically cites MIHs 1 to 14. PolyMet believes the citation was intended to be MIHs 1 and 14.	EDIT01
3726	Regarding the last sentence of the third paragraph [(under Bald eagle heading)], there are no standing dead trees in the existing LTVSMC Tailings Basin.	EDIT01
3727	In the third paragraph, it should be noted that the northern Myotis ( <i>Myotis septentrionalis</i> , Northern long-eared bat) was proposed as a federally listed endangered species by the USFWS on October 2, 2013.	WI01
3728	The second paragraph should reference Moose zone 3, not Moose zone 30.	EDIT01
3729	The fourth sentence of the second paragraph incorrectly states that the Tailings Basin is “unlikely to be heavily used by wildlife.” The Tailings Basin is a local refuge for herds of deer, small mammals and wolves.	EDIT01
3730	The first sentence in the first paragraph references the Longnose, Wetlegs and Wyman creeks as surface water features in the Upper Partridge River Watershed. However, there is no discussion on these creeks or a reference to a previous discussion in the SDEIS. PolyMet recommends either providing a similar discussion of that provided for Mud Lake, Yelp Creek, and Second Creek on page 4-214 or explaining why such analysis is not provided.	EDIT01

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<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3731	The second sentence uses the term “watershed” while the third sentence uses the term “larger watershed.” PolyMet suggests explaining the difference between a "watershed" and a "larger watershed."	EDIT01
3732	The first sentence of the third paragraph should be revised to add Yelp Creek to the list of streams where “no fish or macroinvertebrate community or habitat characteristics could be documented . . . .”	EDIT01
3733	The source of data for these stream surveys should be revised as “Source: Breneman 2005, Barr 2011b, and MPCA 2011c.” Barr 2011b is the source of the information for the PM sites.	EDIT01
3734	PolyMet recommends that the introductory paragraph state that the NHPA process is proceeding on a parallel path to the NEPA process, and that effects on cultural resources have also been considered and analyzed under NEPA.	EDIT01
3735	The last sentence of the introductory paragraph states: “Cooperating agencies have not participated in production or endorsement of any components of the EIS or the NorthMet Project.” This statement is not entirely accurate, since the tribes have participated in the production of components of the EIS relative to cultural resources as well as the Major Differences of Opinion. The EIS should describe the tribes’ participation in the development of the EIS.	EDIT01
3736	The second-to-last paragraph is unclear, both with respect to whether it is discussing groundwater and/or surface water, and with respect to how that discussion fits into the APE analysis. Figure 4.2.9-5, which is not referenced in this paragraph, is a groundwater quality APE, but most of the paragraph discusses surface water quality. PolyMet recommends revising this paragraph to explain how groundwater and surface water affect the APE.	EDIT01
3739	The discussion of the NorthMet Project’s impacts upon visual resources notes that tribal members exercise rights to hunt, fish, and gather on Superior National Forest lands near the Mine Site. However, it also states that “[t]he frequency with which tribal members exercise these rights in portions of Superior National Forest with views of the Mine Site is not known.” In particular because the Bands are cooperating agencies, they have had every opportunity to provide evidence of frequency. Accordingly, PolyMet recommends adjusting this language to state that “there is no evidence that tribal members regularly exercise their rights in this portion of the forest.”	CR01, CR05, CR06
3742	The term “Sensitive Fines” is used on the Figure, yet neither Geotechnical Data Package, Vol. 1, Version 4, nor preceding versions use the name “Sensitive Fines.” April 12, 2013 Geotechnical Data Package, Vol. 1, Version 4 uses the name “Fine Tailings/Slimes.” This material type is missing from the Legend on the lower left corner of Figure 4.2.14-3.	EDIT01
3746	Units and labels are missing from axes [of Figure 4.2.14-3] (e.g., elevation in feet amsl and distance in feet) and the dashed lines in the figures are not in the legend (layers of material).	EDIT01
3748	In the first full sentence [of Section 4.3.3.1.1, p. 4-434], floodplains should be clearly defined, and PolyMet recommends including a figure showing mapped floodplains with wetlands.	EDIT01
3752	The table combines coniferous bogs and coniferous swamps. PolyMet recommends separating these two wetland types here, in the same way that they are separated for discussions of the federal lands. This is also an issue in Tables 4.3.3-6, 4.3.3-8, 4.3.3-10, 4.3.3-12.	EDIT01
3754	The table contains inaccurate acreage for open bog and shallow marsh. Open bog should be 2.1 acres, and shallow marsh should be 84.1 acres. In addition, the third sentence under Table 4.3.3-6 should also be edited from: “Large bogs dominate much of the east-central portion of Tract 1” to the suggested “Shrub swamps dominate much of the east-central portion of Tract 1.” The current sentence is inaccurate because there are only 2 small bogs (2.1 acres total) on the Hay Lake parcel.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3755	The first sentence states that non-native invasive species on the federal lands are the same as the Mine Site because “they occupy the same area.” This is not accurate. The Mine Site is smaller than the federal lands.	VEG09
3756	In footnote 2 [of Table 4.3.4-5], PolyMet suggests deleting the phrase “additional populations may be present in more marginal, secondary habitat that was not surveyed, or in wetter areas.” There is no evidence (no survey) of additional populations in marginal, secondary habitat, and the SDEIS should make that clear.	EDIT01
3767	The second paragraph appears to suggest that there is a correlation between the acreage of a given MIH cover type and the likelihood that an RFSS species that prefers that cover type will actually be present. This is not entirely accurate. The paragraph fails to take into account other qualitative factors that influence the likelihood of an RFSS species being present. PolyMet recommends revising the paragraph to state that the presence of RFSS species would be further influenced by the quality of the habitat available, not just the quantity.	VEG09
3773	Sections 4.3.5.2.1 and 4.3.5.2.5[:] In both of these sections, there is a contradiction between text under “federal and state-listed species” and the text under “RFSS.” The text under “federal and state-listed species” says that northern myotis and eastern pipistrelle are potentially present on Tracts 1 and 5. The text under “RFSS” states that only northern myotis is potentially present. This inconsistency should be resolved.	WI01
3775	This section [(4.3.5.2.1)] discusses “species of tribal concern.” This is not a legal category. PolyMet recommends deleting this phrase.	EDIT01
3777	The first sentence in the second paragraph should be revised to read “Some of the non-federal lands... .” Not all of the non-federal lands have streams, creeks, rivers, or lakes on them.	EDIT01
3781	General Comment on all Land Exchange sections[:] The Land Exchange analysis must review FEMA floodplains. Therefore, the Land Exchange sections should define whether the floodplains are FEMA or non-FEMA. For example, the first sentence of the second paragraph in Section 4.3.6.2.1, p. 4-522, should be revised to read “approximately 376 acres of non-FEMA floodplain.” This change should be reflected throughout the Land Exchange sections.	WET14
3791	This paragraph incorrectly compares Coyote Creek with Stony River. These are not comparable systems. The Stony River is a higher order, more diverse aquatic system than the first order, headwaters Coyote Creek. It cannot be assumed that the conclusions drawn from the studies for Stony River are applicable to Coyote Creek.	EDIT01
3796	The second paragraph is one sentence and cites “MIH 14.” PolyMet recommends that this paragraph first provide some description of the MIH 14 before making the statement it currently contains.	EDIT01
3798	The first sentence of the second full paragraph states that the “groundwater containment system would capture at least 90 percent of seepage from the Tailings Basin.” This is incorrect. The system will capture 100% of surface seepage and upwelled water, and at least 90% of seepage that remains as groundwater flow. Overall, 99% of seepage from both surface and groundwater will be captured. The sentence, as written, implies that the system will be less effective than it will be.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3807	The 4th paragraph states: “With the proposed design modifications and engineering controls, the water quality model predicts that the NorthMet Project Proposed Action would not cause or increase the magnitude of an exceedance of the groundwater and surface water quality evaluation criteria at the P90 level for any of 28 solutes at 29 groundwater or surface water evaluation locations within the Partridge River and Embarrass River watersheds...”PolyMet proposes the following language: “With the proposed design modifications and engineering controls, the water quality model predicts that the NorthMet Project Proposed Action would not cause or increase the magnitude of an exceedance of the groundwater and surface water quality evaluation criteria at the P90 level for any of the 27 solutes and mercury (further addressed below) at 29 groundwater or surface water evaluation locations within the Partridge River and Embarrass River watersheds...”	EDIT01
3817	The 3rd paragraph states: “Within the water quality modeling, estimated concentrations for these six metals are compared to hardness-based standards at each model evaluation location and each model time step to determine compliance with the evaluation criteria.”PolyMet proposes the following language: “Within the water quality modeling, modeled concentrations for these six metals are compared to hardness-based standards at each model evaluation location and each model time step to determine compliance with the evaluation criteria.”	EDIT01
3829	The 4th paragraph states “Methylmercury is much more of a problem than inorganic mercury, in that it can accumulate to concentrations of concern in the aquatic food chain, it is more bioavailable than inorganic mercury, and it can bioaccumulate in fish, wildlife, and humans.” The term “problem” suggests a conclusion, when this sentence is actually describing concerns. PolyMet proposes the following language: “Methylmercury is more of a concern than inorganic mercury, in that it can accumulate to concentrations of concern in the aquatic food chain, it is more bioavailable than inorganic mercury, and it can bioaccumulate in fish, wildlife, and humans.”	EDIT01
3833	The first sentence at the top of the page reads: “Research suggests that total mercury concentrations in streams and methylmercury content in fish are roughly proportional within individual watersheds (USGS 2010), such that, for example, a 5 percent increase in total mercury in water would be expected to result in about a 5 percent increase in mercury content in fish within that watershed.”This sentence should be changed to clearly state that the potential incremental change in fish mercury concentration is an evaluation criterion and that MPCA’s Mercury Risk Estimation Method (MMREM) was used to assess the potential changes in fish mercury concentrations in nearby lakes. The MMREM is a method that relies on empirical fish contamination data, combined with the principle of proportionality between mercury in fish and atmospheric deposition (MPCA 2006, MMREM guidance document).	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3834	In the references section to the SDEIS, the USGS 2010 reference cited above links to the following web page: Some Ecosystems Will Respond to Reductions in Mercury Emissions. USGS July 29, 2010.1 The first sentence on this webpage states: “An international team of scientists investigating mercury cycling in an experimental watershed in Ontario, Canada, conclusively demonstrated at the ecosystem scale that changes in mercury loadings are expected to result in proportional or near proportional changes in mercury bioaccumulation in fish.” PolyMet believes this conclusion of proportionality is not applicable to this project for at least three reasons. First, the cited website summarizes the results from a study referred to as the Mercury Experiment to Assess Atmospheric Loading in Canada and the United States (METAALICUS) study, which was conducted on a headwater lake, not in a stream. The METAALICUS study itself cites that runoff dominated lakes (flow through systems) would not respond the same as a precipitation-dominated headwater lakes (Harris et al., 2007). Because a stream can also be thought of as a flow through system, it will not respond in the same way to increases or decrease in atmospheric deposition as a precipitation-dominated headwater lake. In other words, for a run-off dominated lake (flow-through system), the contribution of ambient (pre-existing) mercury from the watershed to the lake is much greater than the contribution of new mercury to the water surface. The same would be true of a stream wherein the new mercury from atmospheric deposition would be minor compared to the contribution of ambient mercury. In addition, Minnesota’s Statewide Mercury TMDL (MPCA 2007, Section 4.1) states that “... The primary source of mercury to the state’s water bodies is atmospheric deposition, which is approximately uniform across the state. Mercury concentrations in fish, however, vary widely on both large and small scales. ...”. Nutrient loadings, hydrology, presence/absence of wetlands and other factors contribute to different fishmercury concentrations in lakes that are relatively close to each other. Therefore, using the concept of proportionality is expected to result in an overestimate of the potential incremental change in fish mercury concentrations due to an individual project’s mercury air emissions as the concept of proportionality does not seem to be supported for individual streams or lakes based on the available data. Second, steady state was not reached during the 3 year METAALICUS study. Ghorpade (2010 thesis) identifies that 8 years after the study started, steady state was not reached and the researchers are not able to predict when steady state might be reached. Therefore, the assumption of proportionality based on the METAALICUS study is uncertain. Third, there are several USGS reports that indicate a relationship between filtered methyl mercury concentration in stream water and fish mercury concentration. However, likely because of the watershed specific factors affecting methylation of mercury, there is not a USGS report, 2010 or otherwise, that identifies a statistically significant relationship between total mercury in surface water and fish mercury concentrations.	MERC02
3835	Modeling results for location UC-1 are not presented in the SDEIS. Therefore, this location should not be shown in Figure 5.2.2-6 as a model evaluation location.	EDIT01
3836	The 3rd and 4th sentences of the first paragraph should be clarified to reflect that the Plant Site MODFLOW model was not calibrated to baseflow in the Embarrass River, nor was the model used to estimate baseflow.	EDIT01
3837	Regarding the last sentence on the page, the regional MODFLOW model calibration was not updated to the revised baseflow estimates from XP-SWMM. The Mine Site Water Modeling Data Package Attachment C provides: “The regional model calibration was not updated because the original calibration did not incorporate a baseflow estimate and previous sensitivity analysis indicated that the local-scale model results were not sensitive to the lateral boundary conditions that were defined by the regional model (Barr, 2007). Therefore, the perimeter boundary conditions for the local-scale model remained unchanged.”	EDIT01
3838	The footnote on the “Specific yield” column of the table [(5.2.2-9)] only applies to the surficial deposits, not the entire column in the data table.	EDIT01
3842	The 1st paragraph states: “GoldSim was programmed with a suite of complex algorithms to estimate the release of contaminants from mine facilities (i.e., “sources”) and their transport to groundwater and surface water evaluation locations.” PolyMet suggests the following language: “GoldSim was programmed with a suite of algorithms to estimate the release of contaminants from mine facilities (i.e., “sources”) and their transport to groundwater and surface water evaluation locations.”	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3846	The 1st paragraph states: “The onset of acidic pore water is also problematic, as these conditions cause the rate of sulfide oxidation to increase and the concentration of metals to increase as precipitates dissolve.” PolyMet suggests the following revision: “The onset of acidic pore water is also of concern, as these conditions cause the rate of sulfide oxidation to increase and the concentration of metals to increase as precipitates dissolve.”	EDIT01
3849	The bulleted list near the middle of the page provides slightly incorrect sulfide sulfur ranges for the waste rock classification criteria, as well as an incorrect reference for this information. The sulfide sulfur classification criteria for the categories of waste rock should be revised as follows:- Category 1 – sulfur content less than or equal to 0.12%.-Category 2 – sulfur content greater than 0.12% and less than or equal to 0.31%.- Category 3 – sulfur content greater than 0.31% and less than or equal to 0.60%.-Category 4 – sulfur content greater than 0.60%.Categories 2 and 3 are combined to produce Category 2/3 with sulfur content greater than 0.12% and less than or equal to 0.60%.This information can be found in Section 4.4.1 of the Waste Characterization Data Package v10 (PolyMet 2013)	EDIT01
3851	The first sentence of the last paragraph on page 5-53 states that “the GoldSim model simulates constituent release from waste rock based on assumptions that either extrapolate from conditions observed under field-scale weathering of similar rock (Category 1 waste rock) or in laboratory tests (Category 2, 3, and 4 waste rock, and ore).” This should be revised to indicate that constituent release for all categories of rock is based on data from laboratory tests. Constituent release rates for all categories of rock are estimated by applying a scaling factor to lab rates to account for likely differences between field and lab conditions. The scaling approach differs between Category 1 and the other categories of rock, but release rates for all categories of rock are based on laboratory data.	EDIT01
3853	The second paragraph states: “The 80 percent rate is used because seepage from the south side of Tailings Basin is likely higher than the flow contribution to Second Creek that would occur from the Basin footprint for natural ground conditions (i.e., if the Tailings Basin were not present)”. This statement is not correct. The 80% is to limit the project impact on flow to +/- 20% of existing conditions, as is recommended by MDNR on Page 5-14.	EDIT01
3854	PolyMet suggests revising the third full paragraph as follows: “WWTP effluent that would be used remaining after flow augmentation to Second Creek would be discharged to the three Embarrass River tributaries (Unnamed, Trimble, and Mud Lake creeks), as partial or complete fulfillment of required augmentation to maintain downstream hydrology and wetland function in Second Creek and the three Embarrass River tributaries (Barr 2013a). Pumping from Colby Lake would be used to meet any remaining augmentation requirement.”	EDIT01
3856	The second paragraph states: “Tailings seepage bypassing the containment system (approximately 19.4 gpm) would continue... .” On page 5-8 (Section 5.2.2) and in Table 5.2.2-36, the flow bypassing the containment system is said to be “about 21 gpm.” PolyMet recommends revising for consistency.	EDIT01
3858	The active source period for the Category 4 Stockpile is incorrect. The stockpile will be removed during the development of the Central Pit and will be entirely removed by the end of Mine Year 11.	EDIT01
3860	The last full paragraph should acknowledge that the pH in the East Pit backfill will be monitored and adjusted by the addition of alkaline water from the WWTF as backfilling progresses in order to maintain circum-neutral conditions in the backfill pore water.	EDIT01
3861	The SDEIS states: “The quality of this aquifer inflow would reflect the quality of the pit lake water, which would gradually improve over time due to cycling through the WWTF.” However, the West Pit water will not be cycled through the WWTF during reclamation. PolyMet suggest revising the text to: “The quality of this aquifer inflow would reflect the quality of the pit lake water, which would gradually improve over time due to the effectiveness of the reclamation activities at the site.”	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3867	The SDEIS states: “Cobalt was generally used to illustrate groundwater transport at the Mine Site because it is not attenuated and would enter the surficial flowpaths at concentrations higher than baseline groundwater.” This statement is misleading. PolyMet suggests rewording to the following: “Cobalt was generally used to illustrate groundwater transport at the Mine Site because the model did not account for attenuation, and would enter the surficial flowpaths at concentrations higher than baseline groundwater.”	EDIT01
3868	The first paragraph incorrectly states that flow augmentation must be at least 145 or 180 gpm, which is 80% of capture flow rate of the current south-side seepage. Table 5.2.2-40 shows 400 gpm, which is the correct rate for augmentation (see The Water Modeling Data Package – Volume 2 Plant Site v9). The same error is made in the last paragraph on Page 5-153 (Section 5.2.2.3.2).	EDIT01
3869	The first paragraph of this section only discusses quantities of seepage during closure and not operations. The paragraph below could be added to discuss these aspects during operation: “During operations, the Category 1 Stockpile would be uncovered. Infiltration would percolate to the bottom of the stockpile and be collected by the surrounding groundwater containment system. As the stockpile footprint is expanded, the total seepage during operations will increase up to a maximum annual flow of between 290 gpm and 440 gpm. Most of this seepage would be collected and sent to the WWTF for treatment; an estimated peak flow of 20 gpm to 30 gpm would pass below the containment system and be drawn by gravity into the dewatered West Pit.”	EDIT01
3872	This table [(5.2.2-28)] is consistent with what was provided in the AWMP, but the corresponding text on Page 5-125 leaves the inaccurate impression that the effluent targets were what was modeled as effluent concentrations. The text should be modified to match the table.	EDIT01
3873	The use of the term “non-contact stormwater” in this table [(5.2.2-29)] and elsewhere in the text is somewhat confusing, as it seems to imply that this is water being managed by PolyMet. PolyMet recommends using the more appropriate term “unimpacted watershed runoff.”	EDIT01
3874	The first paragraph on this page should acknowledge that there is a low probability for exceedances caused by the project.	EDIT01
3875	Unnamed Creek should be included in the discharge locations for the WWTP effluent. SD006 is the location for Unnamed Creek, not Second Creek. The table organization contradicts language found in the last paragraph of page 5-177, which states “augmentation flow to Unnamed Creek would be via a single discharge near the current SD006 discharge.”	EDIT01
3876	The text states: “The rate at which contaminants would move through the groundwater would be the same as the groundwater seepage velocity downgradient of the containment system for all but four constituents (arsenic, antimony, copper, and nickel).” ... Because no attenuation values are used for the constituents – other than arsenic, antimony, copper, and nickel – the modeled rate of groundwater transport will be faster than the actual rate of transport in the ground. PolyMet recommends noting this fact in the text.	EDIT01
3878	The last sentence of the last paragraph states: “Transport of other non-attenuated solutes should be similar to lead, but the change in concentrations is not always as visually noticeable as it is for lead.” This statement is misleading. Lead is the only solute of interest where loading to the environment is predicted to increase as a result of the project, which is why it is the only solute to show a visible concentration front moving through groundwater down gradient of the tailings basin. Thus, other solutes do not show a similar behavior as lead.	WR082
3880	The second to last paragraph states: “...the concentrations of these metals in the WWTP effluent would be significantly higher than the concentrations in the current Tailings Basin seepage...” This sentence should be revised to use the term “modeled concentrations...” The modeled effluent concentrations from the WWTP are higher than the values reported in pilot testing of the proposed treatment systems for the WWTP, but were selected to be near, and slightly below, the potential effluent limit for the modeled constituents to provide a conservative assessment of potential consequences related to downstream water quality. PolyMet also recommends making this adjustment in Table 5.2.2-47 on page 5-188.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3882	The second to last paragraph states: "...the average aluminum concentration in the WWTP influent and effluent would be about 10 mg/L..." This should be 10 µg/L.	EDIT01
3883	The first paragraph following the bulleted list states: "This dilution effect is demonstrated by the increase in measured aluminum concentrations from upstream tributary locations (UC-1, TC-1, and MLC-3) to downstream locations (PM-11, PM-19, and MLC-2), where upstream locations would average less than 100 µg/L compared to downstream locations averaging about 142 µg/L." It is unclear whether this refers to observed or modeled conditions. The use of the term "measured" implies reference to actual, observed data, but stating that upstream locations "would average less than..." implies model results. It also is unclear whether the 100 µg/L and 142 µg/L figures are modeled or observed.	EDIT01
3884	There appears to be inconsistency in the chromium standard that is used in this chapter. The referenced pages state: "Among the six constituents with hardness-based evaluation criteria (cadmium, chromium (III), copper, lead, nickel, and zinc),..." and Table 5.2.2-4 lists chromium (III), as the evaluation criteria with a hardness based standard. However, later in the document, the standard for chromium (VI) is used in Tables 5.2.2-30 and 5.2.2-42 for example. Please clarify which standard was used for chromium, and why.	EDIT01
3885	The number of pit lakes should be 16, not 21 as reported in this table [(5.2.2-49)].	EDIT01
3887	The third paragraph states "...precipitation, which averages about 9.8 ng/L based on average volume-weighted mercury in precipitation as measured at the Marcell Experimental Forest deposition site in Itasca County (NADP 2013)." Barr's analysis, consistent with the table on the next page, is based on 13 ng/L deposition based on the Fernberg Road site. PolyMet recommends citing the Fernberg Road concentration of 13.2 ng/L instead of the Marcell concentration of 9.8 ng/L. This comment also applies to the SDEIS's cumulative impact discussion in the first paragraph of p. 6-31 and second paragraph of p. 6-33 (Section 6.2.3.3.4).	EDIT01
3888	The second full paragraph on page 5-204 states: "The NorthMet Project Proposed Action is predicted to result in a net decrease in mercury-loading to the Partridge River from 24.2 to 23.0 grams per year." The basis for these numbers is not indicated and not consistent with data provided by Barr 2012b. The loading memo indicated a net decrease from 12.1 to 10.8 grams per year. Similarly, the first paragraph on page 5-207 states: "The NorthMet Project Proposed Action is predicted to result in a net increase in mercury loading to the Embarrass River of up to 0.6 grams per year (from 22.3 to 22.9 grams per year), about a 3 percent increase." The loading memo indicated a net increase from 18.5 to 19.1 grams per year. These same comments also apply to pages 6-31 and 6-34 discussing cumulative impacts (Section 6.2.3.3.4).	MERC04
3889	The second bullet, when explaining the predicted increase in mercury loading to the Embarrass River, states: "Tailings Basin containment system, which would collect seepage from the Tailings Basin, with an estimated mercury concentration of 1.1 ng/L, and route it to the WWTP, which would discharge with an assumed mercury concentration of 1.3 ng/L, for a net increase of 0.2 ng/L of mercury as a result of wastewater treatment, which is a conservative assumption." PolyMet suggests explaining that the reason this is conservative is because the WWTP would reduce mercury concentrations, and any additional mercury removal from installing a greensand filter, are not accounted for.	EDIT01
3890	The SDEIS states: "Overall, mercury loadings are predicted to increase slightly in the Embarrass River (3 percent) as a result of the NorthMet Project Proposed Action, but would be offset by a larger decrease (5 percent) in the Partridge River, resulting in a net decrease in overall mercury loadings (0.6 grams per year) to the St. Louis River as a result of the NorthMet Project Proposed Action." The basis for these percentages is not indicated and not consistent with data provided (Barr, 2012b). According to the loading memo analysis, the increase at the Embarrass River would be 0.2% and the decrease at the Partridge would be 0.9%. This comment also applies to page 6-18 in Section 6.2.3.3.4.	MERC18

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3891	The second bullet under NorthMet Project Proposed Action Design Changes states: “The location of the Category 4 Stockpile was shifted such that seepage would be captured in the Central Pit and East Pit and would minimize effects on surficial groundwater.” The terminology and locations used here are confusing. PolyMet suggests the following instead: “The location of the Category 4 Stockpile was shifted such that water contacting the stockpile would be captured in the East Pit and would minimize effects on surficial groundwater.”	EDIT01
3892	The sixth bullet states: “Refined Hydrometallurgical Flowsheet – A single (rather two) autoclave would be fed with nickel concentrate and produce copper concentrate produced with beneficiation refinements. The production of hydrometallurgical residue would be cut approximately in half with this design change. Residual copper would be recovered by cementation (contacting the leach solution with copper concentrate) to further upgrade the copper concentrate and to further reduce the production of hydrometallurgical residue.” To be more precise, the last phrase should be changed to: “... and to potentially further reduce the production of hydrometallurgical residue.”	EDIT01
3893	The first bullet discusses subaqueous disposal of reactive waste rock, but it does not mention subaqueous disposal of some of the Category 1 waste rock. Although Category 1 waste rock is considered the least reactive waste rock, it should still be mentioned here.	EDIT01
3894	The fourth bullet discusses the use of side dump cars to haul ore and states: “Ore Transport – PolyMet proposes to use side-dump rail ore cars that would minimize ore spillage (PolyMet 2013c).” Side dump rail cars were proposed as part of the DEIS, as documented in DEIS Section 3.1.3; therefore, this is not a design change and should not be included in this section.	EDIT01
3906	The last bullet discusses the WWTP and states: “A WWTP would be added at the Plant Site to treat Tailing Basin seepage through operations.” Treatment at the WWTP will not end at the end of operations. The WWTP will actually treat this water through operations and closure.	WR035
3907	The seventh bullet discusses the tailings basin containment system and refers to it as being “on the western, northern, and northeastern sides of the existing LTVSMC Tailings Basin.” The containment system is not located along the northeastern side of the tailings basin; it is located on the western and northern sides of the tailings basin, as described appropriately on SDEIS Page 3-116 (under Engineering Water Controls).	EDIT01
3908	The first bullet, as part of a tabulation of fixed engineering controls, states: “Process water management, including pipes, pumps, and process water ponds that would be used to separate and control stormwater and process waters.” This statement does not account for the fact that the process water ponds are lined. Accordingly, PolyMet recommends inserting “lined” before “process water ponds.”	EDIT01
3909	The flow monitoring for stormwater has footnotes stating that flows would be monitored continuously. There are no pumps associated with this infrastructure, so continuous flow monitoring is not proposed for stormwater flows. Flows are proposed to be monitored on a monthly basis as specified in the Water Management Plan – Mine (v2) Section 5.2.	EDIT01
3910	table [5.2.2-53] includes water level monitoring for Whitewater Reservoir. This was not included in the Water Management Plan – Mine and has never been discussed with the agencies.	EDIT01
3911	The fourth bulleted item is misleading and should be clarified by changing the text in parentheses to say “within Area 1.”	EDIT01
3912	The first paragraph states “The analog approach was based on similar mine settings (e.g., within the glacial till region).” PolyMet proposes the following revision: “The analog approach used observations of groundwater response adjacent to iron range mines characterized by moderate to high hydraulic conductivity glacial and fluvial deposits overlying lower hydraulic conductivity bedrock.”	EDIT01
3913	The third sentence of the first full paragraph should be clarified by identifying the source and rationale behind using 675 square meters of watershed area per meter of track in the contributing watershed as the method for identifying potentially impacted wetlands.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3914	In the second sentence of the third paragraph, it is an overstatement to suggest that wetlands represent pre-European settlement conditions, as the area was likely logged several times since settlement.	EDIT01
3915	The second bullet should read: “In-kind mitigation means the replacement of the impacted aquatic site with the same wetland plant community type.” See USACE, 2009, II.D.3.	EDIT01
3916	The third bullet should read: “Out-of-kind mitigation means the replacement of an impacted aquatic site with a different wetland plant community type.” See USACE, 2009, II.D.3.	EDIT01
3917	In the second paragraph, the rule citation is incorrect as is the interpretation of the rule. The second paragraph should read: “The Federal Mitigation Rule also states that “difficult-to-replace” aquatic resources include bogs (33 CFR 332.3(e)(3) and Preamble, page 19633). The majority of the wetlands that would be affected by the NorthMet Project Proposed Action would be “difficult-to-replace” (coniferous bog and open bog) (USACE 2013). The Federal Mitigation Rule includes a provision for a case-by-case determination of mitigation ratios higher than the minimum 1:1 where necessary to account for the difficulty of restoring or establishing the desired aquatic resource type and functions.”	EDIT01
3918	The third sentence of the third paragraph is not supported by the data collected for the project. None of the wetlands proposed to be affected by the project were rated as having exceptional vegetative diversity/integrity ratings.	EDIT01
3919	The second to last sentence in the fourth paragraph should read: “For effects on wetlands with rare or exceptional functions or difficult-to-replace bogs, the USACE may require additional compensation in accordance with District Policy and the Federal Mitigation Rule.”	EDIT01
3920	The first sentence of the second to last paragraph should read: “If none of these incentives are met, the minimum mitigation ratio required is 1.5:1.”	EDIT01
3921	The third paragraph states that base compensation ratios could be increased to 2:1. There is not rationale or reference provided for this statement, which is not specifically stated in the District Policy or Federal Mitigation Rule. The same comment applies to page 5-316 and page 5-321.	EDIT01
3922	In the fourth paragraph, it is stated that Minnesota Rules 8420.0552 requires financial assurances to ensure successful wetland replacement. This provision only applies to wetland replacement that is not in advance. In addition, the local government unit may waive this requirement if it determines the financial assurance is not necessary to ensure wetland replacement.	FIN11
3923	The first paragraph states that because the compensatory wetland mitigation is planned in advance, that financial assurance would not be required under Section 404. This may not be true because the purpose is to ensure successful completion of the mitigation, and it may not be possible to determine success within one year of wetland mitigation construction.	FIN11
3924	The 6 rows [in Table 5.2.3-17] beginning with “<50%...” and “<80%...” are not relevant to the PolyMet project and could be removed in order to maintain clarity.	EDIT01
3925	The first paragraph after the list should read: “The financial assurance requirements would be part of the WCA permitting process for the NorthMet Project Proposed Action. Wetland replacement for the NorthMet Project Proposed Action is expected to be approved and constructed in advance of any authorized wetland effects (under the WCA approval) and, therefore, would not require financial assurance.”	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3926	No reference is provided for the statements made in the fourth paragraph. Justification for why the wetland mitigation opportunities discussed in this paragraph were determined to not be practicable was provided in “Wetlands Mitigation Plan Supplement – Wetland Mitigation Planning and Siting Documentation,” RS20T Draft-04, PolyMet, June 1, 2008. One additional difficulty with such wetland mitigation opportunities that was not discussed in the reference provided is the presence of severed mineral rights on many of those lands. In order to place restrictions on the land, as required for wetland mitigation, those mineral rights would need to be controlled.	EDIT01
3927	In the last paragraph, the third sentence should read: “The mitigation would be considered in advance if the initial phases of restoration on all of the proposed off-site wetland mitigation sites would be completed at least one full growing season in advance of the authorized wetland effects provided initial performance standards are met for which the mitigation would compensate.” Also, in the last paragraph, 939.4 acres is stated with no reference. That number should be referenced to Tables 5.2.3-19 and 5.2.3-20 of the 404 permit application.	EDIT01
3928	In the fifth paragraph, the first sentence should read: “The minimum replacement ratio that would be allowed by the USACE is 1:1 (USACE, 2009) for those wetlands that would be replaced with the same wetland type, and at least one full growing season in advance of the authorized wetland effects provided initial performance standards are met; however, base compensation ratios could be increased to 2:1 (add reference) for effects on wetlands with rare or exceptional functions or difficult-to-replace bog wetlands.”	EDIT01
3929	The first sentence in the last paragraph (before the bullet), should read: “Under the Minnesota WCA, the replacement ratio that would likely be allowed is 1.5:1, because the Aitkin Site wetlands are out of the NorthMet Project area watershed (see Tables 5.2.3-18 and 5.2.3-20).”	EDIT01
3930	The first sentence in the second paragraph should read: “The minimum replacement ratio that would be allowed by the USACE is 1:1 (USACE, 2009) for those wetlands that would be replaced with the same wetland type, and at least one full growing season in advance of the authorized wetland effects provided initial performance standards are met; however, base compensation ratios could be increased to 2:1 (add reference) for effects on wetlands with rare or exceptional functions or difficult-to-replace bog wetlands.”	EDIT01
3931	The first sentence in the third paragraph should read: “Under the Minnesota WCA, the replacement ratio that would likely be allowed is 1.5:1, because the Hinckley Site wetlands are out of the NorthMet Project area watershed (see Tables 5.2.3-18 and 5.2.3-20).”	EDIT01
3933	The first sentence in the last paragraph should read: “The minimum replacement ratio that would be allowed by the USACE is 1:1 for those wetlands that are replaced with either the same wetland type, or at least one full growing season in advance of the authorized wetland effects provided initial performance standards are met; however base compensation ratios could be increased to 2:1 for effects on wetlands with rare or exceptional functions or difficult-to-replace bog wetlands.”	EDIT01
3934	The first sentence on the page (continuing from the previous page) should read: “For low- to moderate-quality wetlands, the recommended base ratio of 1.5:1 would be reduced to 1.25:1 for in place and could be reduced to 1:1 if also either in-advance or in-kind.”	EDIT01
3935	The section on the Zim Site does not include any description of restoration methods and sequencing, which is included in the descriptions for the Aitkin and Hinckley sites. See “Zim Sod Wetland Mitigation Site Wetland Mitigation Plan” (PolyMet, November 2011) for an appropriate description.	EDIT01
3936	A footnote should be added to the table [5.2.3-18] describing why there is 101.8 acres of on-site wetland mitigation shown in the second to last column but no associated wetland credits in the last column. Similarly, the same acreage is shown in the “On-Site (acres)” column, but no associated credits are shown in the “Total Credits” column.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3937	The last paragraph states, “Approximately 72 percent of credits proposed would be located outside of the watershed.” This statement is misleading because all of the proposed credits are above the minimum 1:1 replacement ratio. In fact, 48 percent of the proposed impacts are proposed to be replaced in-kind, in-place, and ahead of time. If the on-site wetland mitigation were factored in, approximately 56 percent of the wetland impacts would be replaced within the watershed.	EDIT01
3938	The last paragraph states that the Federal Mitigation Rule places additional emphasis on replacing coastal wetland losses within a coastal watershed. However, the Rule simply states that unavoidable wetland impacts within a coastal watershed should be replaced within a coastal watershed, where practicable. The Federal Mitigation Rule states that when sufficient bank credits are not available, permittee-responsible mitigation is the only option. It further states that, where practicable and likely to be successful and sustainable, permittee-responsible mitigation should be determined using the principles of a watershed approach (33 CFR 332.3 (b)(4)), which should be used to the extent appropriate and practicable. Therefore, the approach for compensatory mitigation for unavoidable wetland impacts within coastal watersheds appears to match the approach for wetland impacts in other watersheds.	COE01
3939	The numbers in the second sentence of the second paragraph are inaccurate. In this sentence, 7,350.7 acres should be 1,771.5 acres (based on Table 5.2.3-3; excluding the “no effect” acres) and 6,498.1 acres should be 587.1 acres (based on Table 5.2.3-4; excluding the “no effect” acres).	EDIT01
3940	In the third paragraph, the third sentence should read: “At The Mine Site, an additional 16 monitoring locations are proposed and are planned within all wetlands that have received effect factor ratings of 3, 4, or 5 near the North Met Project area features and in several wetland with effect factor ratings of 1 or 2 located throughout the areas of potential indirect wetland impacts.” This is consistent with the information provided on page 5-336, second paragraph of the SDEIS.	EDIT01
3941	The last sentence of the first full paragraph states: “Indirect effects were estimated by comparing the proximity of the NorthMet Project area infrastructure footprints to existing natural features.” Polymet suggests revising the text to read: “Vegetation communities can be affected by more than one of these types of indirect effects. For this reason, indirect effects on vegetation cannot be precisely quantified, as this would result in double-counting of vegetation community acreage where multiple indirect effects are manifested. The relative magnitude of indirect effects on vegetation communities can, however, be estimated. Typically, indirect effects are more likely to occur and/or are more likely to be evident in vegetation communities that are closer to Project components and other infrastructure (e.g., roads). Indirect effects tend to diminish with increasing distance from Project components and other infrastructure.”	EDIT01
3942	In the discussion of the NorthMet Project’s effects on culturally important plants, the SDEIS discusses wild rice but notes that that “a distinct list of plant species important to the Bands is not available.” The Bands were cooperating agencies in preparation of the SDEIS, and accordingly had every opportunity to provide a distinct plant species list. If such a list is not available, PolyMet recommends stating that the Bands have not identified culturally important plants not already identified and discussed in the SDEIS.	EDIT01
3943	The text describes indirect effects as a certainty, when there is no basis for determining the likelihood and/or magnitude of indirect effects. Where the text makes statements such as “[Species name] may be indirectly affected by changes in hydrology”, the word “potentially” should be inserted (“may potentially be indirectly affected”) to more accurately reflect the uncertainty over the likelihood and/or magnitude of indirect effects.	EDIT01
3944	The eighth sentence of the second paragraph states: “Disturbance-tolerant species may, in some cases, actually be disturbance-dependent.” PolyMet recommends providing a citation for this claim or removing the sentence.	EDIT01
3945	The last sentence makes an assumption about how impacts to a state-listed species could be mitigated through the purchase of an unprotected site. PolyMet recommends noting in this section that appropriate, acceptable mitigation will be determined by the MDNR.	VEG01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3946	The last sentence of the second paragraph assumes that the non-federal lands rank lower for biodiversity because no studies have been conducted to designate Sites of Biodiversity Significance and native vegetation communities. This is speculative and inconsistent with the data that demonstrate similarities in the cover types between the federal and non-federal lands. On that basis, it is reasonable to assume that, once the non-federal lands are surveyed, Sites of Biodiversity Significance will be designated, and native plant communities will be mapped.	VEG09
3947	In the second sentence of the eighth paragraph, it is misleading to state that “an average of 2,066 miles per day of vehicular traffic” would contribute to potential lynx impacts. The majority of those miles would be traveled within the pit/mine site and not along outside roads where lynx encounters would be far more likely.	EDIT01
3952	Second paragraph: The Transportation and Utility Corridor runs both parallel and perpendicular to the identified wildlife travel corridors.	EDIT01
3954	The last paragraph states: “Effects on aquatic biota from the lead exceedance due to changes in hardness are not well understood, but would likely increase the potential to adversely affect aquatic life.” This statement does not acknowledge that the modeling results predict increased potential for a lead exceedance (due to the use of a probabilistic model); rather, the statement incorrectly implies that there will inevitably be a lead exceedance.	EDIT01
3956	In the second paragraph, it should be noted that most of the floodplain on the federal land is outside of the Project Area.	EDIT01
3957	The right-most table column heading should be renamed “Non-FEMA regulated floodplains.” A column should be added for “FEMA-regulated floodplains.” This comment also pertains to Table 5.3.3-7.	EDIT01
3960	Table 5.3.3-5[:] The subtotal for open bog on non-federal lands is not accurate. The number should be 7.1 acres.	EDIT01
3961	The second sentence of the third paragraph lists “lean ore” as a handled material. However, lean ore has been eliminated from the Mine Plan.	AIR13
3962	The last sentence of the third paragraph refers to the proposed monitors at the Mine Site as “ambient air quality monitors.” This may be confusing because they are not intended to assess compliance with NAAQS/MAAQS, but to provide information for fugitive dust control. PolyMet suggests using “PM10 monitors” instead.	AIR12
3965	[In] Table 5.2.7-4... The Plant site emission totals include some double counting for natural gas and propane combustion emissions and do not reflect potential to emit or estimated actual emissions. The column heading (and text) using “Projected Controlled Emissions” may be confusing. PolyMet recommends using standard air permitting nomenclature: potential, actual, allowable, etc.	AIR12
3966	Table 5.2.7-6[:]... Plant site emissions are estimated actuals. The controlled potential would be more appropriate to compare to major source level. The Mine Site max single HAP emissions in table are for Mn. Max Plant +max Mine Site single HAP emissions are for Ni at 5 tpy. PolyMet suggests removing “...Prevention of Significant Deterioration-regulated...” from table title. Major source determination under NEAHAPS includes fugitive sources; PSD for non-listed source category does not.	AIR12
3967	The first two sentences of the first paragraph indicate that emissions in Table 5.2.7-7 are potential emissions. However, they are not for the Plant Site as these totals reflect some double counting for natural gas and propane combustion emissions (see Comment 204 above). Although the SDEIS distinguishes between potential and maximum potential emissions, it is not clear what the difference is. PolyMet suggests providing an explanation of the use of short tons in Table 5.2.7-7 and metric tons in Table 5.2.7-8.	AIR12
3968	[Regarding] Table 5.2.7-7[:]... Plant site emissions are not PTE or estimated actual emissions or proposed limited emissions.	AIR12

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3970	The bulleted items require revision. The Northshore Mine does not consume increment. It was included in the increment analysis in that it was considered and eliminated as an increment consuming source (constructed before applicable baseline dates). The same comment applies to the text on page 5-410.	AIR12
3976	In the second to last sentence, Polymet suggest clarifying that the other sources were also modeled at maximum emission rates to show the modeling essentially constituted worst case scenario.	AIR12
3977	The text implies that mobiles sources were modeled for Class II criteria pollutant modeling. However, they were not (per EPA guidance and the approved modeling protocol). They were included in AERA and Class I modeling.	AIR12
3979	In the third sentence of the first paragraph, the increment result of 18 µg/m <sup>3</sup> is for the cumulative analysis. The accurate result is 27 µg/m <sup>3</sup> , as shown in table 5.2.7-11.	AIR09
3980	The first sentence of the second paragraph is incorrect. All sources were modeled together.	AIR09
3981	The second sentence in the first paragraph states that "...modeling analysis included the entire NorthMet Project area and nearby sources." The Plant Site results with nearby sources are in Chapter 6.	AIR09
3982	[In] Table 5.2.7-13... The figures for 2002 should be 0.001 and max 0.001.	AIR09
3983	[In] Table 5.2.7-22... "Inhalation only acute" and "chronic non-cancer HI" should be displayed with 1 significant figure – i.e. 1 not 1.0.	EDIT01
3984	In the second paragraph, PolyMet suggests noting that if metals are obtained from projects elsewhere, the projects are likely to be subject to much less overall environmental regulation.	AIR14
3988	In the last paragraph, the incremental risk at Wynne Lake for a recreational fisher should be as 0.07 in Plant Site AERA report, not 0.08.	EDIT01
3989	The third sentence of the first paragraph inaccurately states that H2SO4 was "screened out." The estimated risk was added to the other chemicals evaluated to obtain the total.	EDIT01
3991	The third sentence of the last paragraph lists "NO2 from natural gas combustion" as an acute risk driver. However, natural gas is not available at the Mine Site. Rather, NO2 is from diesel fuel combustion.	AIR12
3992	The sixth sentence of the first paragraph inaccurately states that H2SO4 was "screened out." The estimated risk was added to the other chemicals evaluated to obtain the total.	EDIT01
3993	The second sentence of the third paragraph inaccurately states that the risk assessment was refined by considering where maximum concentrations occur in space. The results were acceptable without this refinement. This comment also applies to text on page 5-426.	AIR09

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
3994	The first paragraph in this section states: “The science, policy, and regulatory frameworks regarding GHGs are continually evolving and are often subject to differing interpretation. For the purposes of the SDEIS, the information presented below is intended to provide the current understanding through June 15, 2012 with subsequent information regarding climate change updated in the FEIS.” PolyMet supports the SDEIS’s stated intent to supplement the GHG analysis with recent analysis and developments on the topic of climate change and greenhouse gases. PolyMet believes two recent developments in particular warrant acknowledgement in the FEIS. The first is President Obama’s directive to the EPA last summer to promulgate carbon pollution New Source Performance Standards (NSPS) for existing electric utility generating units by June of this year, adopt a final standard by June 2015 and require state implementation plans be submitted by June 2016. The second is the 2013 Minnesota law that will require Minnesota Power to generate at least 1.5% of its electricity through solar by 2020. These initiatives are expected to decrease the amount of indirect, power-production-related greenhouse gas emissions by the utilities that are expected to supply electricity to the NorthMet Project.	AIR01
3995	The first sentence of the first paragraph says: “If, during permitting, it is determined that mitigation measures are necessary, the measures described in this section could be considered.” However, most of the measures described are already an integral part of the proposed Project. PolyMet suggests deleting first sentence.	AIR13
3997	PolyMet recommends deleting the second to last sentence in the second to last paragraph on the page, which reads: “At the time this review was conducted, PM2.5 was not regulated under PSD and” at the beginning of the sentence and starting with “[T]he NorthMet Project Proposed Action is not subject to PSD...”	AIR13
3998	In the second paragraph, PolyMet recommends adding a statement that PolyMet agreed to apply more rigorous dust control procedures for unpaved roads at the Mine Site to also reduce fugitive emissions.	AIR07
4006	The text in the above two sections [(i.e., Section 5.2.10.2.6, p. 5-509; Section 6.2.3.11, p. 6-101)] makes reference to a potential Environmental Justice (EJ) impact for Band members and other subsistence consumers of fish due to increased mercury concentrations and associated increases in mercury bioaccumulation in fish tissue. This conclusion is reportedly based on the analysis presented in Section 5.2.2.3.4 and relates specifically to the Embarrass River and downstream chain of lakes. Page 5-509 states: “Operations could affect individuals who consume fish harvested from nearby water bodies... (see Section 5.2.2.3.4).” The discussion in Section 5.2.2.3.4 states that there would be a slight increase of “up to 0.6 grams per year (from 22.3 to 22.9 grams per year), about a 3% increase.” Although not directly referenced in Sections 5.2.10.2.6 or 6.2.3.11, text in the first paragraph on Page 5-21 is the only attempt in the document to correlate mercury concentrations in a water column to mercury content in fish. This is a critical connection if one attempts to suggest there is a potential EJ issue... PolyMet does not believe this relationship is substantiated by either site specific data or more general research presented in the literature. The statement that there is a potential EJ impact due to increased mercury concentrations and associated increases in mercury bioaccumulation in fish tissue is unsubstantiated by fact.	SO04
4007	The third full paragraph inaccurately states that PolyMet will be required to develop a risk management plan for HCl. Only HCl at a concentration of 37% or greater is subject per 40 CFR 68.130. PolyMet will be required to develop a risk management plan for liquid SO2.	HAZ01
4008	The third paragraph states: “Conceptual designs of the waste rock stockpiles, Tailings Basin, and Hydrometallurgical Residue Facility have been developed and shown by PolyMet, through an iterative design and model process, to meet the minimum safety factors and water quality criteria (see Section 5.2.2) acceptable to the Co-lead Agencies. PolyMet suggests changing the word ‘conceptual’ to ‘preliminary’.	EDIT01
4012	The required and computed Slope Stability Factors of Safety for the stockpiles are not presented. Stockpile Slope Stability Safety Factors are reported in Tables 2, 3 and 4 of Attachment G of the May 29, 2012 Geotechnical Data Package, Vol. 3, Version 2.	GT04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
4015	The second bullet under Design Criteria states: "Factor of safety greater than or equal to 1.3 for short-term, undrained strength conditions for soils that are not prone to static liquefaction using undrained strength conditions." This sentence should be revised to indicate that this analysis does not include static liquefaction. Liquefaction is addressed subsequently.	EDIT01
4017	The second paragraph uses the phrase "bulk tailings." PolyMet recommends defining "bulk tailings" to limit potential confusion. LTVSMC Coarse Tailings are proposed for use in dam construction but since the Coarse Tailings may have occasional inclusions of fine tailings and slimes, the term "Bulk Tailings" has been used by PolyMet to describe the planned tailings borrow. The same comment applies to page 5-562, which states: "The proposed dams would be constructed from mechanically placed and compacted bulk tailings taken from the existing LTVSMC Tailings Basin as needed to produce the desired dam lift height and geometry. LTVSMC bulk tailings are currently defined as a mixture of tailings from the existing LTVSMC Tailings Basin."	EDIT01
4021	The eighth paragraph states: "As dams are constructed, exterior slopes would be covered with bentonite and vegetated. Upon reaching....." This statement is not completely accurate. On the exterior face of new dams, bentonite will be integrated into the near-surface layer of tailings. The dams will not be "covered with bentonite."	EDIT01
4022	The second sentence states: "The predicted Factor of Safety values for Cross Section F at various stages of development of the Tailings Basin are summarized in Table 5.2.14-1. All slope stability factors are designed to meet the factors of safety required by the NorthMet Geotechnical Modeling Work Plan (PolyMet 2013n, Attachment A)." It is more appropriate to say that the slope stability factors are designed to meet the "applicable requirements of Minnesota Rules 6115.0300 through 6115.0520 and the factors of safety required by the Co-Lead agencies in the NorthMet Geotechnical Modeling Work Plan (PolyMet 2013n, Attachment A)." The first paragraph under Design Criteria on p. 5-556 contains similar language.	EDIT01
4023	The third paragraph states: "Modeling was undertaken to predict the long-term stability of the Tailings Basin. As shown in Table 5.2.14-1 and Table 5.2.14-4, the long-term closure slope stability Factors of Safety are above the minimum value required under the Work Plan." It is more appropriate to say that the slope stability Factors of Safety "are above the minimum value deemed acceptable to the Co-lead Agencies and required under the Work Plan." There is similar language in the last paragraph on p. 5-566.	EDIT01
4024	The second paragraph states: "Where monitoring or model updates indicate that the Factor of Safety for the Tailings Basin no longer meets design criteria, appropriate modifications to the Tailings Basin would be considered, modeled, and, if necessary, undertaken." This sentence leaves doubt that prompt action will be taken if Factor of Safety values fall below design requirements. PolyMet recommends clarifying that mitigating measures will be explored and implemented as needed if at any time it is determined that Factor of Safety values have fallen below design requirements.	EDIT01
4025	The first paragraph states: "PolyMet took the steps listed below in order to demonstrate that the design of the Hydrometallurgical Residue Facility would meet the respective geotechnical requirements and would be in accordance with the NorthMet Geotechnical Modeling Work Plan (PolyMet 2013n, Attachment A):" PolyMet recommends revising the sentence to read: "PolyMet took the steps listed below in order to demonstrate that the design of the Hydrometallurgical Residue Facility would meet the Co-Lead Agencies respective geotechnical requirements and would be in accordance with the NorthMet Geotechnical Modeling Work Plan (PolyMet 2013n, Attachment A) which was reviewed by the Co-Lead Agencies."	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
4026	The third item under the first paragraph states: “Developed seepage and stability models using Geo-Slope International, Inc. modeling software (i.e., SLOPE/W, SEEP/W and SIGMA/W as necessary) for maximum facility dam height with minimum and maximum pond elevation, and post-closure – cover effective with minimum pond elevation the maximum.” The last phrase is poorly written and confusing. PolyMet suggests using the following revised text: “Developed seepage and global stability models using Geo-Slope International, Inc. modeling software (i.e., SLOPE/W, SEEP/W and SIGMA/W as necessary) for hydrometallurgical residue facility dam lifts 1, 2 and 3; each with maximum pond elevation, and an infinite stability model to analyze facility liner stability.”	EDIT01
4028	The text describing the figure [5.2.14-6] (see paragraph under “Identification of Design Cross Section” on p. 5-571) makes reference to Node A. Yet, Node A is not shown in the figure. There also is a blue dashed line (presumably denoting the phreatic surface in surrounding materials) that is not defined in the figure legend nor is the dashed line labeled in the figure.	EDIT01
4029	This Section [(5.2.14.2.3)] does not clearly distinguish between (1) the settlement of the Hydrometallurgical Residue Facility (HRF) foundation materials and resulting movement of the HRF liner system and (2) future consolidation of the residue deposited within the HRF and resulting movement of the residue surface. PolyMet recommends more detail to provide clarification.	EDIT01
4030	The first paragraph states: “The results reported in Geotechnical Data Package Volume 2 Version 3 indicate that the proposed design of the Hydrometallurgical Residue Facility would meet all respective factors of safety as required (PolyMet 2012a). The modeling undertaken and results are summarized below.” PolyMet suggests revising the statement to say that the design “would meet all of the Co-Lead agencies’ respective factors of safety as required (PolyMet 2012a).”	EDIT01
4031	The first paragraph states: “Analysis of the new dams (i.e., those not supported by the existing LTVSMC Tailings Basin or natural topography) at their greatest height (at year 20) resulted in a computed Factor of Safety for the ESSA of 2.32, which is greater than the required minimum of 1.5.” The sentence should be revised to state that the resulting Factor of Safety is “greater than the Co-Lead Agencies’ required minimum of 1.5.”	EDIT01
4032	The fourth sentence of the first paragraph states: “The minimum infinite slope stability safety factor for all Hydrometallurgical Residue Facility liner system components is 1.5.” It would be more appropriate if the sentence was revised to read: “The Co-Lead Agencies’ required minimum infinite slope stability safety factor for all....”	EDIT01
4033	The third sentence of the third paragraph incorrectly states that the “Land Exchange alternatives were not analyzed in the Biological Assessment.” These alternatives were analyzed in the Biological Assessment (BA). This sentence should be revised to state “Land Exchange alternatives were analyzed in the Biological Assessment for the Proposed NorthMet Mining Project and Land Exchange (USACE and USFS November 2013)”.	WI11
4034	The last sentence in this paragraph is inaccurate because Coyote Creek and Stony River on Tract 3-Wolf Lands are not comparable systems. The Stony River is a higher order, more diverse aquatic system than the first order, headwaters Coyote Creek. It cannot be assumed that the conclusions drawn from the studies for Stony River are applicable to Coyote Creek.	EDIT01
4036	The fifth paragraph states: “The only two reasonably foreseeable actions with the potential to significantly affect flow within the Partridge River and Embarrass River are the Mesaba Energy Project East Range Alternative Site and the Mesabi Mining Project, which would result in a net increase in Lower Partridge River flow as a result of pit dewatering for the foreseeable future.” This statement seems to ignore the eventual closure of the Northshore Peter Mitchell Pit (which is recognized elsewhere in the SDEIS). When that pit begins filling, Northshore will stop dewatering discharge to the Upper Partridge River. This would be a net decrease in flow relative to existing and modeled conditions. This action is anticipated within the modeling period but is not incorporated into the GoldSim model because the actual date of when this change would be made is not known. However, the potential for no discharge from Northshore to the Partridge River was considered in the sensitivity analysis conducted for the Project.	EDIT01, WR024

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
4042	Table 6.2-6 lists cumulative sulfate loadings to the Embarrass River by activity and includes NorthMet uncaptured groundwater seepage and NorthMet WWTF effluent. Table 6.2-6 does not include NorthMet augmentation flow from Colby Lake to Embarrass River tributaries. This source has a higher sulfate concentration than the WWTF effluent, and should be included in the Table.	WR124
4043	The introduction to Section 6.2.3.4, “Wetlands,” on page 6-34 states that the cumulative effects analysis “focuses on direct effects” on wetlands. Page 6-43 indicates that there will not be indirect cumulative effects on wetlands because water flows will not be changed. This discussion is in some tension with the effects analysis in Chapter 5, which anticipates the potential for some indirect effects on wetlands. PolyMet recommends referencing the discussion in Chapter 5 as part of the cumulative effects discussion.	EDIT01
4044	Regarding the third sentence of the third paragraph, no federally-listed plant species would be affected by the project because there are no federally-listed plant species in all of St. Louis or Lake Counties. PolyMet recommends re-phrasing the sentence to read, “No federally-listed plant species are known to occur on the NorthMet Project site.”	EDIT01
4045	The text states that least grapefern ( <i>Botrychium simplex</i> ) is most likely to occur in lowland deciduous cover types. However, least grapefern has a broader habitat range than the text implies. The MDNR Rare Species Guide provides: “ <i>Botrychium simplex</i> var. <i>simplex</i> occurs primarily in open sites, including prairies, wetlands, and abandoned mine sites. <i>Botrychium simplex</i> var. <i>tenebrosus</i> prefers forest interiors, especially low moist spots in mesic hardwood forests” (Source: MDNR Rare Species Guide: <i>Botrychium simplex</i> ). <sup>2</sup> The text also conflicts with Table 6.2-14, which lists both “Disturbed” and “lowland deciduous” as the likely habitat types. Finally, the section underestimates the range of least grapefern. The Preferred Plant Species Habitat column for least grapefern should include habitats other than lowland deciduous types, as discussed in the MDNR guide. <sup>2</sup> Available at <a href="http://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&amp;selectedElement=PPOPH010E0">http://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&amp;selectedElement=PPOPH010E0</a> .	VEG01, VEG09
4046	In the final paragraph below Table 6.2-13, the qualifying statement regarding the lack of precision and the degree of uncertainty inherent in the evaluation methodology should be stated up front in Sections 4.2.4, 5.2.4 and 6.2.4.	EDIT01
4047	In the second sentence, it is unclear what is meant by “MDNR minerals division data” and how this data pertains to ETSC or RFSS plant species. PolyMet recommends clarifying and explaining why this data is used in this section, but not in Sections 4.2.4 or 5.2.4.	VEG09
4048	The last paragraph states that “forestry management offers a greater range of options for ETSC plants to co-exist with the practice, as it can mimic natural disturbances.” This statement seems to be based on the previous statement in Section 5.2.4.2.1, p. 5-348, that “Disturbance-tolerant species may, in some cases, actually be disturbance-dependent.” As stated in a prior comment, PolyMet believes this statement is misleading and that it is inaccurate to suggest that ETSC plants favor and/or are increased by disturbance regimes.	EDIT01
4050	In the last sentence of the last paragraph, the increased percentage from the NorthMet Project Proposed Action alone should be 0.2 to 1.6 percent, not 0.2 to 1.8.	EDIT01
4051	PolyMet also recommends adding the following additional sentence at end of the paragraph at the top of the page: “This potential change is not likely statistically measureable and does not have any effect on the background fish Hg concentrations nor the current fish consumption advisories for the respective lakes.”	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
4052	In the first complete paragraph, the description of how the HQ is calculated does not reflect the calculations in the MMREM spreadsheet. To estimate the potential incremental HQ, the incremental methyl mercury exposure in mg/kg body weight per day and the reference dose are accounted for in the calculation. The derivation of the incremental HQ can be described as noted below: The incremental HQ calculation in the MMREM Spreadsheet uses the following methodology: -Incremental daily mercury consumed (mg) = estimated incremental increase in fish mercury due to the Project (mg/kg) x the amount of fish consumed (e.g. 0.142 kg for a subsistence fisher) -Incremental methylmercury exposure (mg/kg BW – day) = Incremental daily mercury consumed x 1.07945 / adult body weight (70 kg) -Incremental HQ = Incremental methylmercury exposure (mg/kg BW –day) / Reference Dose of 1.00E-04 mg HgCH3/kg bw-day (i.e., the ratio of the incremental methylmercury exposure divided by the reference dose in the same units).	EDIT01
4053	The cumulative emissions modeling includes NorthMet, so adding this result to the Project impacts includes some double counting of impacts. See also second to last sentence in paragraph under Section 6.2.3.8.4 header on p. 6-64. PolyMet suggests the following text changes and note additions to Table 6.2-19: [See PolyMet comment letter, page 66 of 70, Comment 258 for revised table]	AIR09
4054	Regarding the last sentence of the first paragraph, the cumulative analysis included both the Mesabi Nugget Large Scale Demonstration Plant and the Mesabi Mining Project.	AIR09
4055	[In] Table 6.2-22... The incremental result for Mesabi Nugget noncancer acute should be 0.03. The percentages at the bottom should be 9% for Cancer and 7% for Noncancer Chronic.	EDIT01
4057	Regarding the third sentence of the first paragraph, dry deposition, as well as wet deposition, was in the cumulative assessment.	AIR09
4058	PolyMet suggests editing the header of Point 4 to read: "15 percent of 2018 visibility impairment projected to be due to northeast Minnesota emissions and 70 percent of visibility impairment due to out of state emissions"	AIR08
4059	PolyMet suggests the last sentence of Point 4 be revised to read: "Emissions from Minnesota are the single largest contributor to regional haze and its own Class I areas; however, most of the visibility impairment in these areas is due to out of state emissions."	AIR08
4060	PolyMet recommends adding language to Item 5 that indicates national emission reductions are likely to drive further improvement of visibility in MN Class I areas.	AIR08
4061	The third paragraph under the heading "1854 Treaty Resources" states that the NorthMet Project Proposed Action could affect treaty resources through the bioaccumulation of mercury in fish tissue. This statement is inconsistent with the SDEIS's evaluation of cumulative effects on aquatic resources, which states that there will not be a significant increase of mercury in fish tissue. Because the subjective belief that such an effect may occur does not qualify as an effect under NEPA, the statement on page 6-95 should be removed from the SDEIS.	EDIT01
4062	The statement on hazardous materials in Section 6.2.3.14 indicates that "there could be a small likelihood of cumulative effects associated with increased traffic carrying hazardous materials." This is a mischaracterization of the potential cumulative effect. The sentence should state that the small increased risk associated with traffic carrying hazardous materials is not a significant cumulative effect.	HAZ06
4063	PolyMet recommends clarifying whether acres are reported in GLO or GIS throughout the entire [Land Exchange Proposed Action] section.	LAN06
4064	The text in the last paragraph is somewhat misleading by stating that there would be a decrease to MBS Sites of High and Moderate Biodiversity Significance. The nonfederal lands have not been surveyed for MBS sites yet. Therefore, you cannot accurately say that there would be a decrease; the surveys could potentially indicate that there would be an increase, or an even exchange.	VEG09

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
4066	The final sentence in Section 7.3.1 indicates that the federal lands contain certain natural resources that are “culturally important” to the Bands. While it is accurate that these resources would be lost if the NorthMet Project Proposed Action moves forward, it is also true, and should be noted, that there is no evidence of the Bands accessing any resources at the Mine Site.	EDIT01
4075	The third sentence in the third paragraph of Section 7.3.1, “Irreversible or Irrecoverable Commitment of Resources,” states that while cultural resources may be adversely affected, those effects would be “minimized through avoidance.” Under Section 106 of the National Historic Preservation Act, avoidance is not the only means of addressing adverse effects on historic properties, including the cultural resources identified in the SDEIS. Agencies may also choose to adopt minimization or mitigation measures. Those options should also be recognized in this paragraph.	EDIT01
4076	The final sentence in the first paragraph of Section 7.3.3, “Unavoidable Adverse Effects,” states that effects on water quality would remain after the implementation of mitigation measures. The paragraph should note that these effects would be minor, and not qualify as significant environmental effects.	EDIT01
4078	The first paragraph of Section 7.4, “PREFERRED ALTERNATIVE,” states that CEQ regulations do not require agencies to select a preferred alternative in a Draft EIS like the SDEIS. The same paragraph states that the USACE’s NEPA regulations (Appendix B of 33 C.F.R. Part 325) supersede the CEQ regulations’ “requirement to identify an agency-preferred alternative.” This description of these requirements is confusing. Neither the CEQ regulations nor the USACE regulations require the selection of a preferred alternative in the SDEIS.	EDIT01
4080	Appendix B, p. 1, 1.2 Assessment of Material[:] In the first sentence, “semi-qualitative” should be changed to “semi-quantitative.”	EDIT01
4081	Appendix B, p. 4, 2.2 Availability[:] The last sentence of this section should be changed to: “Notwithstanding economic considerations the underground mining alternative is available at the NorthMet Deposit.”	EDIT01
4082	Appendix B, p. 5, 2.4.1 Mineralization at the NorthMet Deposit[:] With respect to the bullet list of metal prices after the first paragraph, the referenced price for cobalt should be \$17.69 per pound.	EDIT01
4083	Appendix B, p. 7, 2.4.2 Underground Mining Costs[:] In Table 2, the Pre-production Capital Costs (\$ million) of 300 should be changed to 250. The Profit: Metal Value – Costs (\$ million) of -\$193 should be changed to -\$192 and -\$364 should be changed to -\$314.	EDIT01
5357	in Table 4.2.4-2, it is unclear how two of the three species with the highest percent occurrence are estimated to be “uncommon” on the site, while three of the five species with the lowest percent occurrence are estimated to be “common” on the site. This inconsistency should be corrected or explained. The EIS should also explain how estimated abundance at the Mine Site was determined, since the text says that no inventories of non-native invasives were conducted.	VEG09
5384	PolyMet suggests revising the first sentence in the second full paragraph on page 5-6 to read: “...PolyMet proposes a containment system that would capture about 99 percent of seepage from the Tailings Basin...”	EDIT01
5390	The first sentence on page 5-54 states that for Category 1 rock, “...instead of using lab tests, the rate of oxidation and constituent release was estimated from studies of seepage release measured in Dunka Mine rock....”. PolyMet suggests revising the first sentence to read “... instead of using lab tests, the rate of oxidation and constituent release in the field was estimated from lab release rates that were scaled using the results of studies of seepage release measured in Dunka Mine rock....”	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
5393	It is important to note that the Central Pit will not exist until after the Category 4 Stockpile has been decommissioned and the Category 4 waste rock has been relocated to the East Pit for subaqueous disposal. The most apparent benefit of relocating the Category 4 Stockpile as part of the Proposed Action Design Changes is that by locating the stockpile over an area that will be subsequently engulfed by the Central Pit, the overall area of surface disturbance (including vegetation, wetlands, etc) of the NorthMet project will be reduced.	EDIT01
5427	The second to last sentence should read: "Compensation proposed at the Aitkin Site would be expected to meet in-kind compensation, resulting in a compensation ratio for effects to wetlands with rare or exceptional functions or difficult-to-replace bogs of 1.75:1, and if in advance, the ratio would be reduced to 1.5:1."	EDIT01
5432	The second to last sentence in the second paragraph should read: "Compensation proposed at the Hinckley Site would be expected to meet the in-kind incentive, resulting in a compensation ratio for effects to wetlands with rare or exceptional functions or difficult-to-replace bogs of 1.75:1, and if in-advance, the ratio would be reduced to 1.5:1."	EDIT01
5434	The last full sentence on the page should read: "Compensation proposed for the Zim Site would be expected to meet both in-kind and in-place incentives, thereby reducing the compensation ratio for effects on wetlands with rare or exceptional functions or difficult-to-replace bogs from 2:1 to 1.5:1."	EDIT01
5442	The relative magnitude of indirect effects on ETSC or RFSS species would vary between ETSC/RFSS species and between locations of individuals or populations of a given ETSC or RFSS species. The potential for indirect effects on ETSC or RFSS species cannot be quantified, but can be estimated. Typically, indirect effects are more likely to occur in ETSC or RFSS populations that are closer to Project components and other infrastructure (e.g., roads). Indirect effects on ETSC or RFSS species tend to diminish with increasing distance from Project components and other infrastructure.	VEG07
5963	Section 3.2.3 of the SDEIS would be improved if it better reflected the thoroughness of the Co-lead agencies' alternatives review, including review that occurred during scoping and the 2009 DEIS.	ALT22
5967	instead of three action alternatives, the SDEIS contained just one action alternative—the NorthMet Project Proposed Action—which effectively combined the three alternatives studied in the 2009 DEIS, in addition to making other improvements and including a number of new mitigation measures.	ALT22
5968	The SDEIS also reconsidered in more detail certain alternatives that had been eliminated by the analysis in the 2009 DEIS. Those reconsidered alternatives included alternatives for a cover system on the Tailings Basin, one of which PolyMet ultimately adopted (SDEIS p.3-149); an underground mining alternative, which the SDEIS again rejected (id. p.3-150 & App. B); and a West Pit backfill alternative, which was likewise eliminated from further consideration (id. p.3-151).	ALT22
5969	the FSDD, 2009 DEIS and SDEIS contain a careful, thorough review of numerous alternatives to the NorthMet Project Proposed Action that fully satisfies the requirements of both NEPA and MEPA. It is unnecessary to discuss all the details of that review in the SDEIS.	ALT24
5970	PolyMet recommends explicitly referencing and incorporating into the SDEIS those portions of the FSDD and the 2009 DEIS that address alternatives. This should increase understanding of the iterative process of alternatives review that the SDEIS already references in several places... these changes should also be reflected in the Executive Summary, which tends to focus on the SDEIS alternatives review process, without fully acknowledging the role played by alternatives review in the FSDD and the 2009 DEIS.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
5971	PolyMet recommends including an updated version of Table 3.2-4 from the 2009 DEIS somewhere in the Final EIS, either directly in the discussion of alternatives or as an appendix. This would provide context for the discussion of alternatives review and the elimination of alternatives that are not discussed as part of the SDEIS process... [these changes should also be reflected in the Executive Summary, which tends to focus on the SDEIS alternatives review process, without fully acknowledging the role played by alternatives review in the FSDD and the 2009 DEIS.]	EDIT01
5973	The SDEIS properly acknowledges that the U.S. Forest Service (USFS) decision on the Land Exchange Proposed Action must be based on applicable USFS standards. But the SDEIS could more clearly state that the Land Exchange Proposed Action can proceed if those standards are met, regardless of what happens with the NorthMet Project Proposed Action. Accordingly, consistent with the discussion in the 2009 Draft Environmental Impact Statement (DEIS), PolyMet recommends that the Final Environmental Impact Statement (Final EIS) clarify that the Land Exchange Proposed Action may occur independently of the NorthMet Project Proposed Action.	LAN08
5974	The Final EIS accordingly should clearly state that the Land Exchange Proposed Action can proceed entirely apart from the NorthMet Project Proposed Action, so long as the USFS determines that the land exchange is in the public interest and the regulations governing land exchanges are satisfied.	LAN08
5975	The Final EIS accordingly should clarify that the alternative of proceeding with the Land Exchange Proposed Action in the absence of the NorthMet Project Proposed Action was considered but eliminated from detailed analysis in the SDEIS because it is represented by the combination of “no action” on the NorthMet Project Proposed Action and Land Exchange Proposed Action Alternative A. This could be accomplished by adding a brief description of the Land Exchange Proposed Action as a “stand alone” action in Section 3.3.3.3. The alternative would not be eliminated as unreasonable, but rather it would not require further analysis because its impacts were already revealed and evaluated in the SDEIS detailed evaluation of other alternatives.	EDIT01
5976	the USFS “purpose and need” statement in the Final EIS should clearly state that the Land Exchange Proposed Action is intended to consolidate and enhance the functional boundaries of the Superior National Forest, improve public access to National Forest System lands, and implement the overall goals of the Forest Plan for the Superior National Forest. This language will expand on the SDEIS’s accurate statement that the USFS will observe the regulatory requirements for land exchanges.	NEPA04
5977	PolyMet further recommends adding to the front of the Final EIS a discussion of the regulations that require the USFS to ensure there is equalization of exchange values between the federal and non-federal lands, and more clearly linking these regulations with subsequent discussions of this topic in the record. In doing this, the USFS should make clear moving forward that Polymet intends to transfer all of the non-federal lands to the United States, whether they are needed for the Land Exchange Proposed Action exchange or not. At the same time, the USFS can highlight the possibility of a cash equalization if the offered non-Federal lands are deemed insufficient to provide an equal value exchange.	LAN03
5978	PolyMet recommends that the USFS ensure that the Executive Summary is updated to conform to any changes made in the Final EIS. The independent grounds for undertaking the Land Exchange Proposed Action should be particularly clear in the revised Executive Summary, because many readers likely will rely on the Executive Summary to understand the contents of the EIS.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
5979	Section 1.1.2, Land Exchange, uses the phrase “depending on the results of the environmental analysis and real estate appraisals” to mean that the USFS will comply with applicable regulations and Executive Order (EO) 11990 and 11988 to require equalization of exchange values for the federal and non-federal lands, both in terms of market value and acreage of wetlands. As the USFS is aware, Section 3.3.1.1 (among others) discusses the applicable regulations in 36 CFR Part 254 and EOs 11990 and 11988. Discussing these applicable orders and regulations in Section 1.1.2—when the Land Exchange Proposed Action is first introduced—and stating expressly that the USFS will require equalization of exchange values, would help to clarify subsequent uses of the phrase. In addition, modifying this phrase (each time it appears) to say something more along the lines of “depending on the results of the environmental analysis and real estate appraisals, and in order to ensure equalization of exchange,” would also improve understanding of this issue.	LAN03
5980	Section 1.3, Purpose and Need, would be strengthened by a more robust discussion of the purpose of the Land Exchange Proposed Action, which clearly incorporates the relevant regulatory and public interest factors. While the discussion in Section 1.4.3, Land Exchange Requirements, identifies the regulatory and public interest factors that the ROD will need to address in determining whether the Land Exchange Proposed Action should go forward, it should be made clear that the phrase in Section 1.3.2.2, “meet desired conditions in the Superior National Forest Land and Resource Management Plan (Forest Plan),” includes the regulatory and public interest factors discussed later in Section 1.4.3. Thus, PolyMet would recommend the Final EIS specifically identify these factors in the initial discussion in Section 1.3, and include a cross-reference to the more detailed discussion in Section 1.4.3.	NEPA04
5982	the Final EIS should be clear that the land exchange will be justified under governing regulatory and public interest standards. Fundamentally, the Land Exchange Proposed Action will allow for the consolidation of lands within the Superior National Forest in a manner consistent with governing authorities. Section 1.3.2.1 accordingly should highlight this consolidation of lands as a primary purpose of the Land Exchange Proposed Action, instead of focusing on the elimination of the potential conflict.	LAN11
5984	In various places in Section 3.3, Land Exchange Proposed Action Detailed Description, PolyMet recommends clarifying that the Land Exchange Proposed Action may proceed even if the NorthMet Project Proposed Action does not.	LAN08
5985	The “Background” discussion in SDEIS Section 5.2.7.5.1 rightly recognizes that “[r]egulatory definitions for classifying fibers vary.” In fact, Minnesota statutes and regulations do not define the term “amphibole mineral fibers.” The description of “[t]he State of Minnesota’s definition” of amphibole mineral fibers in the “Background” discussion appears instead to be a reference to the permit-specific definition of “fibers” included in Northshore Mining Company’s Title V permit. That definition does not have general applicability. It is also important to note, as background, that neither the U.S. Environmental Protection Agency (EPA) nor the Minnesota Pollution Control Agency (MPCA) has ever promulgated an ambient air “fiber” standard, level or limit.	AIR12
5986	Although the SDEIS indicates that ERM conducted a literature review in 2009, it does not appear that review included the studies resulting from the 2003 International Symposium on the Health Hazard Evaluation of Fibrous Particulates Associated with Taconite and the Adjacent Duluth Complex (International Symposium). ... The purpose of the International Symposium is highly relevant to much of the discussion in Section 5.2.7.5 of the SDEIS ... The conclusion of these risk assessment scenarios was that “calculated risks were found to be trivial even after it was assumed that all mineral fibers were as carcinogenic as amphibole asbestos.” Id.... Those studies, and that conclusion, are not adequately reflected in the SDEIS [see full comment letter for articles].	HU01
5987	[The International Symposium’s] peer-reviewed analysis of the risks associated with ambient “fiber” emissions associated with the nearby Peter Mitchell Mine should be incorporated into the Final EIS’s discussion of amphibole mineral fibers. For example, where the SDEIS mentions that the Peter Mitchell Mine and the Silver Bay processing plant have been “associated” with releases of amphibole mineral fibers (5-438), it should be noted that peer-reviewed risk assessments of those releases indicate that they present a trivial risk to human health.	AIR03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
5989	The SDEIS properly acknowledges the ongoing University of Minnesota-led Taconite Workers Health Study (TWHs), including its finding that worker mortality is primarily due to commercial asbestos exposure, rather than exposure to the minerals being mined. (5-439, 5-440).	AIR03
5993	Based on the evidence from the International Symposium and the TWHs, it is also accurate to state that, in the extremely unlikely event of an amphibole mineral fiber release, those fibers would present a trivial risk to human health.	AIR03
5994	The SDEIS appears to have used the Forest Service regulations as a model for its definition of a reasonably foreseeable action. PolyMet agrees with this approach and believes that the Forest Service regulations provide an accurate description of “reasonably foreseeable” that can be applied easily and understandably to the cumulative impact analysis for the NorthMet project.	CU20
5995	In several places throughout the Chapter 6, the SDEIS concludes that the NorthMet project will have “no cumulative impact” on a specific resource. However, the corresponding section evaluating that resource in Chapter 5 shows a small, but insignificant, impact. In these situations, it is confusing to state that the NorthMet project will have “no cumulative impact,” which suggests that the project will not have any cumulative impact at all. Rather, it is more appropriate to state that the NorthMet project will not have a significant cumulative impact.	CU03
5996	on page 6-29, the SDEIS states that “[s]ince the NorthMet Project Proposed Action and other cumulative projects’ contributions would not cause or increase an exceedance of the water quality evaluation criteria, cumulative effects are not expected.” However, finding no exceedance is not technically the same as finding no impact. Here, it would be more accurate, and in keeping with the analysis in other parts of the SDEIS, to conclude that there would be no significant cumulative impact on water quality.	CU03
5997	the SDEIS concludes that there will be no cumulative impact on recreational and visual resources. It bases this conclusion on the fact that there are no significant cumulative impacts on individual specific resources that factor in to the assessment of recreational and visual resources (such as air quality, wetlands, etc.). The phrasing used implies that the co-leads have analyzed the effects on recreational and visual resources from impacts to these specific resources individually, rather than collectively. PolyMet suggests clarifying that the agencies have analyzed whether the impacts on these resources, although insignificant when considered individually, would have any impact on recreational and visual resources when combined and has concluded that there would be no significant impact.	EDIT01
5998	In Section 6.2.2, the SDEIS states that “[e]xisting conditions that may be related to past or present actions on the specific environmental resources are fully described in their respective section in Chapter 4 and the direct and indirect impacts of the NorthMet Proposed Action are described in Chapter 5.” ... PolyMet recommends providing references to the specific sections or subsections in Chapter 4 and Chapter 5 where the reader can find the basis for the conclusions made on each specific resource in Chapter 6. This relatively simple change will increase readability and make clear the basis of the conclusions in Chapter 6.	NEPA07
5999	The SDEIS should also use consistent language regarding the scope of the cumulative effects assessment areas throughout Chapter 6. On page 6-2, the SDEIS states: “For all resources, future temporal boundaries are the expected service life of the mining activities, including closure (years 20 to 40) and post-closure restoration (year 40 and beyond).” PolyMet recommends removing this sentence, which is not an accurate description of the temporal boundaries for all resources. Indeed, the very next sentence on page 6-2 rightly states that “temporal boundaries for each resource are defined within the respective resources’ sections of this analysis.” That sentence should remain as the sole, accurate explanation of temporal boundaries.	EDIT01
6000	PolyMet recommends, however, more clearly providing the basis for the geographic and temporal scope in each resource-specific section within Chapter 6.	CU05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	PolyMet (47832)	
11134	The SDEIS includes ample information demonstrating that the Land Exchange Proposed Action independently satisfies applicable regulatory standards.	LAN11
11153	The statement of purpose and need should not suggest that the sole purpose of the Land Exchange Proposed Action is to avoid a disagreement over PolyMet’s right to mine under its minerals lease.	NEPA03
11170	Polymet is committed to transferring all of the nonfederal lands to the United States under the Land Exchange Proposed Action for management within the Superior National Forest, regardless of the results of the analysis of equalization of the exchange. If the USFS determines that all of the non-federal lands are not needed for an equal exchange under the Land Exchange Proposed Action, PolyMet would transfer title on a voluntary basis. Conversely, if the non-federal lands are not sufficient for an equal exchange, Polymet would make a cash payment as authorized under governing regulations.	LAN03
11230	Section 1.3.2.2 should identify the fact that PolyMet does not agree with the USFS legal position. This could be done by cross-reference to the appropriate sections in the 2009 DEIS that discuss this issue in greater detail than the SDEIS. For example, a simple cross-cite to Section 1.3.2.2 of the 2009 DEIS would ensure that the reader is aware that additional information on this topic is contained in the 2009 DEIS. PolyMet notes that the SDEIS repeats the USFS position (i.e., that mining cannot occur within the Federal Lands) in many places; as a result, it would be appropriate to note that PolyMet does not agree in most of the places where this issue is described.	EDIT01
11324	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:—Current workplace dust exposure levels—which by their nature would be higher than community ambient levels—are considered safe. Minnesota Taconite Workers Health Study: Annual Report to the Legislature, dated April 19, 2013 (TWHS 2013 Report), Executive Summary, p. 5; Minnesota Taconite Workers Health Study: Public Presentation, Mountain Iron, Minnesota, April 12, 2013 (TWHS 2013 Presentation), slide # 21.	AIR03
11326	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:—Mesothelioma and lung cancer rates among iron ore workers in Zone 4—the easternmost portion of the Iron Range, which includes the NorthMet Project area—are comparable to rates within the far western Zone 1. The highest rates for mesothelioma and lung cancer are found in Zone 2, which is also far west of the NorthMet Project, outside the Duluth Complex. TWHS 2013 Report, Section II, Table 4, p. 30; Section III, Tables 1 and 2.	HU08
11328	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:—A respiratory health study found no increased rates of mesothelioma or lung cancer among the spouses of iron ore workers. Because “spouses would likely have more exposure than those in the communities,” this finding suggests “individuals living in the communities in close proximity to the mining operations would not be expected to have higher amounts of dust-related respiratory disease” TWHS 2013 Report, Section IV, p. 45 (Emphasis added). See also TWHS 2013 Presentation, slides # 20, 47.	HU08
11330	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:—Ambient air samples taken at five Mesabi Iron Range (MIR) communities, including Babbitt and Silver Bay, registered total particulate matter (TPM), PM10 and PM2.5 levels that averaged one-to-two orders of magnitude less than the applicable national or Minnesota ambient air quality standard for those pollutants. TWHS 2013 Report, Section V, pp. 50, 54; TWHS 2013 Presentation, slides #23, 65, 66. The community averages for TPM and PM2.5 are particularly significant because they remained one-to-two orders of magnitude below the applicable ambient air quality standards, even during active taconite processing or mining. TWHS 2013 Report, p. 54.	AIR03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> PolyMet (47832)		
11333	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:…-Particulate levels (PM1, PM2.5, PM10 and TPM) increased slightly during plant or mine activity, but the increase was not statistically significant as compared to times of plant or mine inactivity. TWHS 2013 Report, p. 57; TWHS 2013 Presentation, slide #69.	AIR03
11336	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:… -No asbestiform Elongate Mineral Particles have been identified to date in any of the MIR communities, including Babbitt and Silver Bay. TWHS 2013 Report, p. 57; TWHS 2013 Presentation, slide #65.	AIR03
11338	The TWHS also contains several other findings that support the conclusion [in the SDEIS] that ambient “fiber” emissions pose no threat to the health and safety of mine workers or the general public:… -Particulate matter concentrations in the MIR communities were comparable to those of the two northeast Minnesota background sites (Ely and Duluth), and were lower in all cases compared to concentrations in Minneapolis. TWHS 2013 Report, p. 56; TWHS 2013 Presentation, slides #23, 65.	AIR03
11351	PolyMet recommends removing from the Final EIS statements indicating that the “release of amphibole mineral fibers . . . Could propose a potential public health risk of uncertain magnitude” (SDEIS at 5-439) or that “there remains an uncertain level of potential health risk from airborne amphibole fibers for the NorthMet Project Prosed Action” (SDEIS 5-440). Those statements ignore the evidence discussed above. It would be more appropriate to state that the available scientific evidence, including the evidence from the International Symposium and the TWHS, indicates that amphibole fibers from the NorthMet Project will not present a significant risk to human health.	AIR03
11370	Section 6.2.2.1.21 (Speculative Actions) should reiterate that these actions have not been considered in the cumulative analysis because not enough information is available at this time to allow for meaningful consideration of impacts. In addition, the basis for the determination that each of these projects is speculative should be stated clearly. For example, where the SDEIS states that a company is proposing a project, it should also clearly state that either funding has not been procured or that an application has not yet been submitted to the relevant federal or state agencies.	CU02
11371	the criteria [defining reasonably foreseeable projects and speculative projects] should be applied consistently throughout the cumulative impacts. For example, the SDEIS states that the United Taconite expansion/Highway 53 relocation is a speculative action. However, the SDEIS also acknowledge that a DEIS for the relocation is expected in the next several months. Because the Highway 53 relocation appears to meet the “reasonably foreseeable” criteria, its impacts should be considered in the FEIS.	CU02
<b>Sender Name (Submission ID)</b> Prospect Hill Friends (54689)		
17834	Although the mandate of the Minnesota Department of Natural Resources includes both protection and utilization of the diverse natural resources of this state, the highest priority should be protection. Once a natural resource is lost, restoration may be impossible. We are deeply concerned about the extent of damage that is likely to occur from extracting and processing this hazardous ore.	PER35
17835	The potential timeframe for post-closure maintenance is breathtaking. We reflect on the changes that have occurred in governance, commerce, society, and the environment of the US since 1814, the time span used in the model simulations at the mine site. It is illogical and unjustifiable to expect that treatment could be guaranteed over that time frame, even ignoring projected climate instability.	PD01
17836	We firmly believe and attest that clean water is more important to current and future human generations and the rest of creation than the metals that can be recovered. How can you approve a project that has a high probability of contaminating huge amounts of fresh water and the ecosystems this water supports?	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Prospect Hill Friends (54689)		
17837	We are concerned that approval of this proposed mine will set a precedent for permits to mine the many other ore bodies located in the Duluth Complex, extending into the Boundary Water Canoe Area watershed.	CU04
17839	Even iron and taconite mining of relatively innocuous ore have caused significant environmental damage; the current plan as described in the SDEIS to mine the far more hazardous copper-nickel ores is unacceptable.	PD27
17840	We also disagree with this project on the basis of equality, equity, and social justice. The parties involved should not be tempted to trade temporary benefits for the loss of land that has cultural, spiritual, or historic significance to Native peoples.	SO02
17841	The employment projected by Poly Met for this project is not sustainable, and would draw many if not most employees from outside the region. In contrast, the more diversified activities that have been developed during the past two decades provide good incomes and a reasonable tax base. The region needs new, sustainable industries to support renewable energy, sustainable forest products, and other creative, non-extractive ventures.	SO06
<b>Sender Name (Submission ID)</b> Protect our Manoomin (42976)		
4074	Although Mesabe Widjiu is addressed in the SDEIS, we feel that the SDEIS is inadequate in addressing the issues; namely, reserved treaty rights and the health and well-being of the tribes involved.	CR01
4077	tribal members can exercise their usufructuary rights outside the property lines of PolyMet, but can't exercise those rights within PolyMet's property lines. However, as the SDEIS indicates, the effects of PolyMet's mining operations will extend well beyond the operation sites, and affect both cultural and natural resources in the 1854 Treaty Area.	CR01, CR02, CR03
4084	Under NEPA, the human environment includes the natural and the physical (e.g., structures) environment, and the relationships of people to that environment. A NEPA review must address the cultural context in which the project effects would occur... Although cultural resources under NHPA are covered and assessed in the SDEIS, we feel that documentation and evaluation of traditional cultural properties is inadequate. We don't feel that the NorthMet Project adequately balances development that will protect the 1854 Treaty Area.	CR01
4086	By its own admission, the SDEIS states in several sections (the two above are examples) that Mesabe Widjiu is essentially an NRHP that will be affected by PolyMet mining operations. The question is why is this project moving ahead considering the many mitigating factors associated with mining operations?	CR05
4088	Although the Bois Forte elders were speaking about the whole of Mesabe Widjiu, the Cultural Landscape Study, NorthMet Project, Final Report conveniently breaks it down to five geographical locations... The SDEIS overlooks the fact that Mesabe Widjiu, the cultural resources of which are protected under the 1854 Treaty, is not limited to five geographical locations.	CR05
4089	Protect Our Manoomin concurs with the tribal position regarding the CEAA [of the Partridge and Embarrass River watersheds being too small]. We are greatly concerned about the impact on not only the 1854 Treaty Area, but the impact of Anishinaabeg-gichigami, the Great Sea of the Anishinaabe, also known as Lake Superior.	CR01, CR03
4103	How will these toxins [from mining operations, including aluminum, arsenic, manganese among others (i.e., mercury, Fugitive air particles)] impact the waters, the air, plants, animals, fish, and human beings? What is to prevent the release of these toxins into Lake Superior?	AIR09

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Protect our Manoomin (42976)		
4105	Protect Our Manoomin believes that there are a number of mitigating issues regarding reserved treaty rights that are impacted by the NorthMet Project. Reserved treaty rights are protected under the 1854 Treaty. Fond du Lac and Grand Portage have additional protections under the Environmental Protection Agency's Treatment-As-State status... In sum, the 1854 Treaty Area and Mesabe Widjiu are subject to precedent federal Indian case law regarding reserved treaty rights.	CR01, CR05
4108	Protect Our Manoomin feels that there are simply too many inadequate assurances that the 1854 Treaty Area and Mesabe Widjiu will be protecting from mitigating factors associated with the NorthMet Project. Our cultural, natural, and spiritual resources will be placed in harm's way.	CR01, CR05
4109	We feel that the NorthMet SDEIS marginalizes treaty rights and, in particular, reserved treaty rights. And, in doing so, the ancestral connections that Ojibwe people have in relation to the land are on one hand recognized but on the other hand denied.	CR01
4110	A total of 7 Anishinaabe elders were interviewed and their information was used to develop the framework for Cultural Resources... we question of why the interviews with Fond du Lac elders and Grand Portage elders were excluded from the SDEIS. Surely those interviews provide viewpoints that are pertinent to Cultural Resources, and strengthen the Anishinaabe connection to the 1854 Treaty Area and Mesabe Widjiu.	CR01, CR05, CR06
4130	What kind of assurances do we have that our eco-systems, our environment will be protected 20 years from now, 200 years from now, 500 years from now?	FIN01
4142	As cited in the SDEIS, the 1854 Treaty Area is properly recognized, and the usufructuary rights, i.e., reserved treaty rights, to hunt, fish, and gather are noted. Also noted is the exercise of those rights on public lands, although those rights are excluded from private lands unless permission is granted.	CR07
4146	The cultural landscape in question is specifically Mesabe Widjiu or the Historic Tribal District. Under NHPA guidelines, this entire area is covered under Traditional Cultural Properties.	CR02, CR04, CR05
4148	Protect Our Manoomin concurs with the tribal position regarding the impact on native plant communities [i.e., that there will be a net loss to the federal estate of these MBS communities that would not be compensated with equivalent MBS land exchange parcels gained through the USFS land exchange].	VEG02, VEG08
4152	Protect Our Manoomin concurs with the tribal position regarding Minnesota Wild Rice/Sulfate Water Quality Standard and the impact of sulfates on wild rice [i.e., the State's application of the wild rice standard is not in compliance with the Clean Water Act].	WR163
4154	The 137 manoomin lakes and rivers in St. Louis County are within the boundaries of the 1854 Treaty Area. Although the Minnesota Pollution Control Agency have specified that certain wild rice producing waters are protected under the Wild Rice/Sulfate Water Quality Standard, the rights of Ojibwe people gather wild rice on off-reservation land was affirmed by the U.S. Supreme Court in 1999. Therefore, all wild rice waters in the Ceded Territory are protected under 1864 Treaty.	WR163
<b>Sender Name (Submission ID)</b> Quinn Kilanowski (44306)		
14865	this mine could effect the aquatic life which would snowball into hundreds of problems including eagle populations, wild rice harvest, and the quality of the overall environment for tourists visiting the area.	AQ05
14866	While you claim the mining project would last a while, the park could last forever. FOREVER! That is definitely more economically sound than employing near a hundred people for a short amount of time.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Quinn Kilanowski (44306)		
14867	It does not matter how many steps are taken to prevent ecological damage, damage will be done. And seeing as this would be your first mining project I'm sure it will be damaging beyond what you estimate.	PD01
<b>Sender Name (Submission ID)</b> R Rita Caruso-Santamaria (20748)		
1937	Is it worth risking polluting the environment for 500 years and the subsequent health effects in exchange for any kind of profit?	SO01
16109	Is it worth risking the lives of thousands of people and mass environmental contamination for profits that are not going to remain in the USA?	SO01
16112	We need to balance environmental and economic interests, renewable technology to produce energy that is not going to take humanity and the world to self-destruction.	NEPA15
<b>Sender Name (Submission ID)</b> R Scott Thiem (54704)		
17773	Computer models show that water from the mine and the processing plant will be contaminated with heavy metals and sulfates. PolyMet says that they can capture all of the contaminated water on the site and treat it before it's released into the environment. But their own mine plan shows otherwise, admitting that millions of gallons of polluted water will seep off site, untreated. Even when the mine closes after twenty years, this will continue for hundreds of years.	WR115
17774	The EIS states that the DNR officials say it isn't known how long treatment could be needed. That uncertainty and concerns about how much long-term pollution would cost casts serious questions as to the adequate protections. The EIS estimates \$200 million a year are needed as a damage deposit. Has this damage deposit been calculated out over the 500 years it may take for soils to neutralize? What if cost exceeds the damage deposit set aside? It will be the state taxpayers that will end up with the bill?	FIN01, FIN05, FIN10
17775	PolyMet doesn't have a contingency plan for unforeseen problems like difficulties with water treatment plants, leakage from tailings ponds, and pipeline breaks need to be accounted for in a mine plan.	PD22
17776	At issue is the amount of water that flows through the area affected by the proposed mine, which sits near the headwaters of the Partridge River, a tributary of the St. Louis River. In determining the mine's effects on water quality, the "base flow" rate for the river is a key variable, but it's one for which agencies like the Department of Natural Resources do not have reliable data.	WR003, WR111
17777	No mining operation like this should be allowed to leave waste piles and tailings in a huge open hole in the ground that will fill with water and eventually overflow. A mine like this needs to be reclaimed. ... If the PolyMet people don't want to spend the money to reclaim the right way, then their permit should be denied.	PD01
17778	It is said that the PolyMet project will only produce 360 permanent mining jobs. That is very low for a project of this size. ... Minnesota should not be exploited for the profit of a foreign company that would destroy our environment, take a proportionally small amount of metal and leave the state and take with it all the profits with them.	SO01
<b>Sender Name (Submission ID)</b> R. Nicholas Rowse (57356)		
18465	This proposed mine would cause severe degradation to NE MN & the BWCA.	WILD02
19832	This proposed mine would cause severe degradation to NE MN & the BWCA.	WILD02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> R. Yaeger (57666)		
19377	Their reverse osmosis plan has never been tried on this scale and there is no proof that it will work as advertised.	PD03
19378	PolyMet's mine plan doesn't include anything for basic, common sense contingencies. Historically, things have gone wrong at these mines with dismaying regularity in nearly all cases.	PD22
19379	PolyMet would leave behind a site requiring very expensive maintenance for centuries.	FIN01
19380	No open pit sulfide mine has left clean water and healthy, fertile land behind when they've gone, and the majority have left highly polluted and infertile sites.	PD26
19381	There is no assurance that PolyMet won't just declare bankruptcy, and once again, taxpayers will be stuck with billions in cleanup costs for untold decades. Damage deposits left by previous mines have been laughably inadequate to cover the actual clean up costs.	FIN01, FIN10
19382	Twenty years of (likely) way fewer local job opportunities than currently advertised, is in no way worth the loss of likely as many other jobs in the tourism and guiding industries forever.	SO01
19383	[tourism/outdoor] jobs will not simply resume when the mine folds. How could they when the mine has left behind an ugly mess of polluted land and water with few of the most popular sport fishes, charismatic animals, or its iconic forests and wetlands?	SO02
<b>Sender Name (Submission ID)</b> R.M. (57874)		
19820	They plan to excavate or fill 900 acres of wetlands directly during mining, while indirectly draining or poisoning (with wind-blown toxic metal dust) an additional ten square miles of wetland habitat in the area.	WI02, WI04
19821	Unlike taconite, sulfide mining waste, when exposed to air and water forms sulfuric acid. The acid will leach toxic metals such as mercury, copper, silver and nickel from the waste rock.	WR029
19822	The risk of long-term negative impacts to the wildlife and people of Minnesota is reason to oppose this project.	WI13
19823	This type of mining is not worth it, we need to protect our natural resources, especially water quality.	SO01
<b>Sender Name (Submission ID)</b> Rachel and Don Christensen (54475)		
17468	The major loss of wetlands, primarily bogs, that cannot be replaced. The SEIS already makes it clear that wetland "restorations" will not take place in the Lake Superior watershed and are highly unlikely to replace bogs.	WET03, WET05
17469	Predictions of chemical pollution, not just from sulfate and its acceleration of toxic mercury conversions, but also heavy metals like nickel and aluminum, that kills fish.	AQ05
17470	The long term need to clean up water from pollutants, possibly for 200 years.	WR035
17471	...the plans to mine the proposed site for 20 years, could possibly provide "financial assurance" to cover the expensive costs of water treatment for 200 years of more into the future.	FIN01, FIN05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rachel and Don Christensen (54475)		
17472	...the proposed PolyMet site area has been designated by MN DNR as "Sites of High Biodiversity Significance" and support eleven state-listed species of plants.	VEG01, VEG02
<b>Sender Name (Submission ID)</b> Rachel Butler (27517)		
14745	With pollution and industry affecting so many of our natural places, our public lands need to stay public, and not be given away for the benefit of a few in industry. Please keep these lands protected for public enjoyment rather than private benefit and reject the open pit sulfide mine.	LAN01
<b>Sender Name (Submission ID)</b> Rachel Christensen (48303)		
13120	The SEIS already makes it clear that wetland "restorations" will not take place in the Lake Superior watershed and are highly unlikely to replace bogs. The wetlands at the site have been rated as "having high wetland quality." How can they possibly be "replaced?"	WET03, WET05
13121	It's questionable that a company that plans to mine the proposed site for 20 years, could possibly provide "financial assurance" to cover the expensive costs of water treatment for 200 years or more into the future. Can such treatment truly control all the sorts of pollutants that will come from the mine site?	FIN01, WR037
13122	A large portion of the proposed PolyMet site has been designated by MN DNR as "Sites of High Biodiversity Significance" that support 11 state-listed species of plants. How can destruction of such an area be rectified?	VEG01, VEG02
<b>Sender Name (Submission ID)</b> Rachel Eckert (57970)		
19852	Save the beautiful boundary waters. They are one of the most beautiful places in Minnesota that more people deserve to enjoy.	LU04
<b>Sender Name (Submission ID)</b> Rachel Garwin (41913)		
2132	The SDEIS considers actions related to the taconite industry and public sector in this [cumulative effects] section. The SDEIS, however, fails to account for any additional copper-nickel sulfide mining activity related to the NorthMet project, and it is thus inadequate... The co-lead agencies should properly study the cumulative impact of all related copper-nickel sulfide mining projects facilitated by the approval of the NorthMet project.	CU04
2133	The SDEIS should include estimates for the length of time and amount of money necessary to treat the water in order to meet Clean Water Act standards... Waiting until the permitting stage of the process is too late, as so much momentum will have built behind the NorthMet project that it will almost necessarily go forward at that point. The co-lead agencies should revisit this question and give the public a reasonable estimate of the estimated time and cost associated with treating the pollution associated with the NorthMet project.	FIN05, FIN13
2135	SDEIS uses a low-quality, unreliable study to support its socioeconomic impact analysis. The Bureau of Business and Economic Research (BBER) 2009 & 2012 studies are inadequate to the task of informing public policy, as they only consider assumed benefits of expanded mining activity in the region and do not assess costs.	SO04
2136	The SDEIS fails to provide an adequate cost-benefit analysis, as well, as neither report assesses the extent of the effects of a growing sulfide mining industry on the already robust tourism and recreation industry built around the SNF, Lake Superior, and BWCAW.	SO01
2138	Additionally, the IMPLAN model was not designed to consider economic impacts as the inputs change over time.	SO04

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<b>Sender Name (Submission ID)</b> Rachel Garwin (41913)		
2139	while predicted stream flow reductions might be within annual variability, the reductions in flow were not considered in addition to natural annual variability.	WR086, WR179
2140	while the seepage concentrations of constituent solutes (especially sulfates and mercury) are below allowed water quality standards, the real measure of effect is the impact to total load of each solute in the water body. These impacts should be considered in light of the whole river system, not just at the discharge points from the project.	MERC10
2141	the continued confusion over whether the correct Partridge River flow data were used in the model does not lend confidence in the scientific rigor of the SDEIS. It is important to collect a complete dataset, regardless of industry concerns or timeline.	WR003
<b>Sender Name (Submission ID)</b> Rachel Lee (54544)		
19179	These places mean so much to me... They help people grow and they help people learn about respect and wonder. We have to protect these places for us and for the future.	LU06
<b>Sender Name (Submission ID)</b> Rachel Lord (54869)		
19392	Because of the longevity of water treatment needed...the public and regulators need to know far more about the corporate entity undertaking this project, the actual amount of money needed, and its source, far into the future	FIN01, FIN05
19393	I know how alarmed the owning entities can be when asked to absolutely agree to pay or carry legal liability for such a prospect, and they usually turn out to have the expectations that public money will bail them out in a disaster, or that they will have dissolved themselves and/or declared bankruptcy by the time payments are needed...if financial wherewithal is held off until [the permitting process], it will be too late to stop the EIS on this basis. Financial...data is necessary now	FIN01, FIN10
19394	[Regarding] the dangers of leaks/seepage from the tailings basins. No amount of money, in fines or clean-up, will be able to truly undo the damage to drinking water and wetland habitat.	WET07
19395	Threat to ... pollinator insects: this loss could be grave under current warming conditions and the spread of disease and parasites among bees. There is a necessity to preserve native plants as sustenance for native animals and insects.	VEG01, WI01
19396	[I am convinced that] dry storage/sequestration without exposure to water is the only safe/sensible way to contain dangerous waste products like sulfide-bearing rock. Underground mining and re-burial of tailings inside the shaft seems like the only recourse of the careful, well-educated, and non-toxic	ALT01, ALT10
19397	If the company should re-plant there is a danger in using native species from nurseries that carry plants from seed soaked in neo-nicotinoid pesticides which causes these plants to poison insects that feed from them.	VEG05
<b>Sender Name (Submission ID)</b> Rachel Nelson (42825)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Rachel Nelson (42825)	
7303	some of the gravest failings of this SDEIS:•Inaccurate water movement modeling for water flowing through the mine and waste rock storage area and into the Partridge R. (and thus St. Louis R.) The flow through the site has recently been confirmed to be much higher (over threefold) than the model used in the SDEIS to demonstrate that polluted water would not leave the mine site.•This SDEIS makes assumptions that no pollutants (e.g. sulfates, metals) would reach the St. Louis River and thus Lake Superior. This erroneous assumption is the basis of many other related dubious conclusions of the document that no water quality standards will be exceeded by acid mine discharges.•The potential for sulfate discharges from the mine to amplify the production of methylmercury in the sediment of the Partridge and St. Louis Rivers is not considered, even though this is a known phenomena and methylmercury is already a problem in the sediment and fish of the St. Louis River and its estuary that feeds Lake Superior.	AQ12, AQ28, NEPA05, WR003, WR107, WR108, WR111
7303	some of the gravest failings of this SDEIS:•Inaccurate water movement modeling for water flowing through the mine and waste rock storage area and into the Partridge R. (and thus St. Louis R.) The flow through the site has recently been confirmed to be much higher (over threefold) than the model used in the SDEIS to demonstrate that polluted water would not leave the mine site.•This SDEIS makes assumptions that no pollutants (e.g. sulfates, metals) would reach the St. Louis River and thus Lake Superior. This erroneous assumption is the basis of many other related dubious conclusions of the document that no water quality standards will be exceeded by acid mine discharges.•The potential for sulfate discharges from the mine to amplify the production of methylmercury in the sediment of the Partridge and St. Louis Rivers is not considered, even though this is a known phenomena and methylmercury is already a problem in the sediment and fish of the St. Louis River and its estuary that feeds Lake Superior.	AQ12, AQ28, WR003, WR111
7305	some of the gravest failings of this SDEIS:•Financial assurance funding that commits Polymet and its multinational sponsor Glencore/Extrata to set aside millions of dollars in anticipation of future treatment and clean-up processes at the waste rock, tailings pond, and mine pit, is not clearly addressed in the SDEIS.•Even though[t] this public comment period is the best chance for the public to weigh in on whether the financial assurance required of Poly Met would be adequate, there is only a brief mention of it in the mine plan.	FIN01, FIN02
7305	some of the gravest failings of this SDEIS:•Financial assurance funding that commits Polymet and its multinational sponsor Glencore/Extrata to set aside millions of dollars in anticipation of future treatment and clean-up processes at the waste rock, tailings pond, and mine pit, is not clearly addressed in the SDEIS. Since your agency has asked Polymet pointedly about this, I conclude they don't intend to set aside any money for cleanup of the inevitable environmental damage from this mining operation. •Even though[t] this public comment period is the best chance for the public to weigh in on whether the financial assurance required of Poly Met would be adequate, there is only a brief mention of it in the mine plan.	FIN01, FIN02, FIN13
7307	some of the gravest failings of this SDEIS:•The mine requires a land exchange of 6,000 plus pristine acres of Superior National Forest that Polymet seeks to mine for a similar number of acres of non-comparable private land they propose to swap. The quality of the forest lands and wetlands proposed for exchange is substandard, and the habitat and monetary value of the private lands to be swapped isn't accurately compared to what will be lost to mining. The private lands to be placed into the Superior National Forest will have severed mineral rights, so that these will not be protected from future mining efforts.	LAN04
7307	some of the gravest failings of this SDEIS:•The mine requires a land exchange of 6,000 plus pristine acres of Superior National Forest that Polymet seeks to mine for a similar number of acres of non-comparable private land they propose to swap. The quality of the forest lands and wetlands proposed for exchange is substandard, and the habitat and monetary value of the private lands to be swapped isn't accurately compared to what will be lost to mining. The private lands to be placed into the Superior National Forest will have severed mineral rights, so that these will not be protected from future mining efforts.	LAN03, LAN04
18245	I VIGOROUSLY OPPOSE this mine because its grave environmental impact would affect far more people, including children for generations in this watershed, than the handful in a single generation that it would employ.	SO02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Rachel Nelson (42825)	
18245	I VIGOROUSLY OPPOSE this mine because its grave environmental impact would affect far more people, including children for generations in this watershed, than the handful in a single generation that it would employ.	SO02
18246	No one seems to address tourism as a viable industry; it sure as hell is economically important up here.	SO04
18246	No one seems to address tourism as a viable industry; it sure as hell is economically important up here.	SO04
18247	No one is listening to Native rights arguments about the viability of their land and fishing rights.	CU11
18247	No one is listening to Native rights arguments about the viability of their land and fishing rights.	CU11
18248	What would Polymet's mine do? Destroy not only hunting and fishing habitat in the minefroad areas, but pollute the entire water table in a way that could end fishing in affected waters down the line. End it for good, leaving the kind of ecosystem wasteland you can find north of the great lakes in Canada where sulfide mining has left its mark.	WR108, WR117
18248	What would Polymet's mine do? Destroy not only hunting and fishing habitat in the minefroad areas, but pollute the entire water table in a way that could end fishing in affected waters down the line. End it for good, leaving the kind of ecosystem wasteland you can find north of the great lakes in Canada where sulfide mining has left its mark.	WR089, WR103
18249	Why on earth would Minnesota wish to endanger Lake Superior, the largest freshwater supply in the continent, second largest in the world, for a mining company whose money and technical wizardry could better be turned to recycling copper for technical use?	SO01
18249	Why on earth would Minnesota wish to endanger Lake Superior, the largest freshwater supply in the continent, second largest in the world, for a mining company whose money and technical wizardry could better be turned to recycling copper for technical use?	SO01
18257	Polymet hires engineers who love to hunt and fish up here to come up and tell us this is a good deal for our region. Does this sound like a fair exchange to you? Polymet's profit in exchange for the devastating of a huge ecosystem, ruining our profitable recreational areas, and contaminating the water tables of children for generations?	SO01
18257	Polymet hires engineers who love to hunt and fish up here to come up and tell us this is a good deal for our region. Does this sound like a fair exchange to you? Polymet's profit in exchange for the devastating of a huge ecosystem, ruining our profitable recreational areas, and contaminating the water tables of children for generations?	SO01
<b>Sender Name (Submission ID)</b>	Rachel Rausch (39753)	
7206	The containment of mining wastes is a problem that cannot be solved definitively. The magnitude of waste created by sulfide mining would make it impossible to guarantee that pollution of the fragile ecosystem would not occur. Once mining wastes have been created, they continue to persist in the environment for decades to centuries and continue to pose a threat to the environment long after the mining operations have been abandoned. ... will PolyMet be diligent enough to ensure that the waste from its operations have been taken care of?	PD01
<b>Sender Name (Submission ID)</b>	Raia Meltzer (54873)	
19399	[Mining in the Iron Range] is not a proud heritage that bears continuing in my mind. Have you worked in a mine? These are not jobs to be promoted, especially in such a short-term to make only a few very wealthy people even wealthier.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ralph Butkowski (43067)		
15420	The lack of knowledge about impacts of the mining project is suggested by Eric Carlson's statement that "details would be further worked out" on how one would manage the 3 main pollutants identified by the MPCA... With details to be worked out after a mining permit is granted suggests a lack of understanding about how things are likely to go after mining has begun.	NEPA02
15421	The land exchange program lacks an apparent realization that dollar equity exchange for land does not equate to environmental impact equity. The land exchange plan, like the pollution issue, is a plan "to be further developed". Only superficial mention is made of habitat fragmentation and how to compensate for its effects.	LAN03
<b>Sender Name (Submission ID)</b> Ralph Karsten (50182)		
11073	A few hundred jobs are being offered in exchange for the loss of environment that is enjoyed by thousands in this state; these thousands support the tourism in this area. You will actually <i>**loose**</i> jobs, not gain them.	SO01
16084	In addition, we will have to monitor the waste for a period longer than our country has even been around.	FIN01
<b>Sender Name (Submission ID)</b> Ralph Wyman (43349)		
11685	It is not credible that surface water treatment for hundreds of years will be paid for by a mining company that will have made its profits and departed the region within a few decades. ... The United States is littered with mining and other industrial polluters who make short term profits and then declare strategic bankruptcy.	FIN01
11689	Our state can develop its natural resources in other ways, through tourism, through renewable energy production, and continued innovation in things like healthcare. We do not need the short term jobs and the long-term damage.	SO01
<b>Sender Name (Submission ID)</b> Randall Heldreth (31017)		
13074	Why should the government keep having to use our tax dollars to cleanup corporate America's messes? Stop them in the first place and save us all huge financial and environmental burden.	FIN10
<b>Sender Name (Submission ID)</b> Randolph Gaul (19953)		
9951	Decades (or Centuries?) of reclamation is not worth the ore that would come from the PolyMet mine.	SO01
<b>Sender Name (Submission ID)</b> randy hauserman (41126)		
14202	I believe the state should seek out investments in...industries that don't have the environmental risks or potential negative impacts.	NEPA02
14204	Regarding the potential harm to the environment, if there are problems, there are no do over's and Minnesota's taxpayers could take a big hit.	FIN10
14205	Damage to the environment, so close to one of our most precious resources, the BCWA might be forever	WR111, WR115
14206	The fact that they are proposing at least 200 years of water treatment should be the biggest red flag	FIN01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> randy hauserman (41126)		
14207	With a proposal like this, the state has to look long term, fully weigh the potential negative impacts and protect one of Minnesota’s most precious assets.....the environment	GEN01
<b>Sender Name (Submission ID)</b> Randy Holland (43243)		
11710	Thus it's certain that Polyment and other mining companies won't exist in their present form centuries from now so restitution seems unlikely in case of disaster, leaving future generations to pay for the benefit of existing Minnesotans.	FIN01
11712	It's been pointed out that generic water flow assumptions are being used that may underestimate required site-specific treatment facilities.	WR003, WR091
15806	given that sulfide mining may require the longest water treatment plan in history, it's shocking that there is little scientific basis for the estimates of 500 years or more of treatment.	WR035
15808	it is truly stunning to me that the mining job estimates don't factor in the risk to the much larger tourism industry.	SO02
15811	Given the Arrowhead region's total mineral deposit potential, spending another 6-12 months to inject more science and facts into this discussion would show that short-sighted greed by both the state's budget and mining special interest won't trump the risk of polluting the Boundary Waters, Arrowhead region, and Great Lakes watersheds.	NEPA15
<b>Sender Name (Submission ID)</b> Randy Lasky (38851)		
5160	We feel the project has demonstrated via credible economic impact modeling, that it will deliver a significant economic impact over the 20 year planning period and beyond.	SO10
5161	It’s about jobs and the environment and with the addition of 360 new, quality skilled mining jobs as well as over 600 indirect, valued-added, living wage jobs that can support families; this is significant in a region dependent on our natural resources for upwards of 50% of our regional Gross Domestic Product (GDP). If we look at direct financial impacts on the schools statewide and in the region, as well as tax revenues to local, state and federal government of approximately \$55 million annually, this is a win-win for us all.	SO10
5162	Second, in terms of financial assurances, we understand laws currently exist to provide permitting agencies the flexibility needed to make sure that the State and all of us are not forced to deal with a bankrupt situation and major environmental problems should something happen to PolyMet and this project. Those safeguards for non-ferrous mining can and will be imposed by Minnesota Department of Natural Resources (MDNR) during the permitting stage.	PER03
5163	In terms of flexibility to hold PolyMet accountable, appropriate assurances can be determined and implemented; under the law, MDNR could select from any number of financial assurance tools including trust funds or escrow accounts, surety bonds, letters of credit, certificates of deposit or insurance policies. Whatever instrument is selected, we agree it has to be bankruptcy proof, held in title by the State, continuously in place, annually updated and readily available to regulators to safeguard the State’s interests.	FIN01, FIN05, FIN08
<b>Sender Name (Submission ID)</b> Randy Wenthold (37877)		
16371	The mining companies must use DADMAC and other polymer products to help recover the suspended solids as part of the mining and ore rinsing process.	HAZ04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Range Bar Association (42972)		
7935	The environmental review process has been lengthy and thorough; the supplemental draft EIS addresses potential environmental impacts and how to mitigate them...The impact to Northern Minnesota's environment will be minimal.	NEPA16
7937	The land post-closure will be reclaimed to protect natural resources over the long term in compliance with the law and enough money is designated to ensure that this process is achieved...Poly Met will provide financial assurance to cover all closure costs.	FIN16
7939	Poly Met's planned mine layout minimizes impact to wetlands, and its reclamation and mitigation plans will replace the wetlands that are lost due to mining.	WET25
7941	PolyMet will control and manage stockpile water with proven technology such as foundation liners, water collection systems and cover systems.	WR190
7942	PolyMet will not discharge process water to the environment that has not been treated with reverse osmosis.	WR190
7944	Poly Met will be a minor source of air pollutants.	AIR14
<b>Sender Name (Submission ID)</b> ray (3424)		
210	I support Polymet for the following reasons[...]Controlling the existing pollution from the old LTV operation and refurbishing the plant and area.	PD28
646	The project will bring in tax dollars and boost the economy in support of future development in the state.	SO10
840	My concern is in the comment process, and the ability of the DNR to remove the political pressure based on the number of comments.	NEPA06
856	The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	PER34
857	I'd also like to address some misinformation ... It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time [200-500 years]. It also shows the project will still meet water quality standards even that far out.	WR115, WR189
859	This [groundwater flow] model demonstrates that PolyMet's plans comply with Minnesota's laws.	PER34, WR190
860	We cannot afford to miss this job opportunity.	SO10
861	Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	NEPA16
878	I believe that the ... eventual operation of the reverse osmosis water purification [used for the NorthMet Project] will provide a research platform for future pollution control other than mining. Minnesota could become a leader in solving water pollution problems worldwide.	WR190
879	the Polymet process to control water pollution is a perfect platform for learning and moving Minnesota into the world stage of this type of pollution control. I believe that eventually it could be a new industry for Minnesota above and beyond mining world wide.	SO10, WR190

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> ray (3424)		
880	I believe that the SDEIS is a complete document. My concern is the comment process, and the political weight DNR will place on the number of responses instead of the validity of content!!!!!!	NEPA11
<b>Sender Name (Submission ID)</b> Ray Allard (15974)		
1098	This mining proposal will affect many things, including unresolved legal issues, tribal concerns, and habitat destruction.	CR01, VEG03, WI02
1101	It seems to me that to permit the entire watershed of Minnesota, ... to be held up for a 500-year ransom because of a couple hundred fixed-duration jobs, is very much the tail wagging the dog.	SO01
<b>Sender Name (Submission ID)</b> Ray Fenner (50090)		
13031	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Ray Lewis (52229)		
16209	When the science of the long-term health and environmental impact is uncertain, I would recommend delaying development.	PD01
<b>Sender Name (Submission ID)</b> Ray Schmitz (43740)		
11790	While it appears that some of the proposed assurances would be fleshed out in later documents, there is nothing that assures me that there is any legal framework or financial instrument capable of assuring its existence for the time periods involved. ... What is to prevent a future court or legislature from excusing the commitments in the future, and even if they did not do so, the corporation or other institution could simply stop performing.	FIN03, FIN14
<b>Sender Name (Submission ID)</b> raybryan (14937)		
260	This is proposed for a very sensitive environment that if upset would destroy an entire _current_ industry for a half millennium - Tourism!	SO02
1797	Allowing the mining to proceed with such plans using current technology is short-sighted in the extreme and wasteful of valuable natural resources for the long-term future.	SO02
<b>Sender Name (Submission ID)</b> Rayma Cooley (52362)		
17021	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
<b>Sender Name (Submission ID)</b> Raymond George Salin (57197)		
17085	I don't want to see any hazardous materials coming out of our ground, polluting our water,	WR070
<b>Sender Name (Submission ID)</b> Raymond H Allard (42828)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Raymond H Allard (42828)	
7325	It seems to me that to permit the entire watershed of Minnesota ... to be held up for a 500-year ransom because of a couple hundred fixed-duration jobs, is very much the tail wagging the dog. And the irony is that even for the lucky few that get those terminal jobs, at the end of twenty years they will not only have to once again face unemployment, but the ultimate costs of their perfidy will be the compromised environment that made them choose to live in the Hoyt Lake region in the first place....My resistance to Polymet is based on my concern over its shocking potential for permanent or long term damage; damage that has followed every other such mining procedure of this type elsewhere. Our uncritical, unquestioning tolerance of corporate greed, under the unrealistic promise of jobs for everyone, has already caused enough damage to our precious resources.	SO02
7325	It seems to me that to permit the entire watershed of Minnesota ... to be held up for a 500-year ransom because of a couple hundred fixed-duration jobs, is very much the tail wagging the dog. And the irony is that even for the lucky few that get those terminal jobs, at the end of twenty years they will not only have to once again face unemployment, but the ultimate costs of their perfidy will be the compromised environment that made them choose to live in the Hoyt Lake region in the first place....My resistance to Polymet is based on my concern over its shocking potential for permanent or long term damage...	SO02
14691	This mining proposal will affect many things, including unresolved legal is'sues, tribal concerns, and habitat destruction.	CR01
14691	This mining proposal will affect many things, including unresolved legal is'sues, tribal concerns, and habitat destruction.	CR01
18263	I sympathize with the concern about jobs and joblessness in the Hoyt Lake region. But this is a bigger question than just the folks in Hoyt Lake. This affects the entire state; the entire North Country, and the ability of residents in the future to defend themselves and their homes from further corporate intrusions.	SO02
18263	I sympathize with the concern about jobs and joblessness in the Hoyt Lake region. But this is a bigger question than just the folks in Hoyt Lake. This affects the entire state; the entire North Country, and the ability of residents in the future to defend themselves and their homes from further corporate intrusions.	SO02
18264	to permit the entire watershed of Minnesota, (especially now, when healthy water is a growing and substantial concern to much of America,) to be held up for a 500-year ransom because of a couple hundred fixed-duration jobs, is very much the tail wagging the dog. And the irony is that even for the lucky few that get those terminal jobs, at the end oftwenty years they will not only have to once again face unemployment, but the ultimate costs of their perfidy will be the cbmpromised environment that made them choose to live in the Hoyt Lake region in the first place.	SO02
18264	to permit the entire watershed of Minnesota, (especially now,when healthy water is a growing and substantial concern to much of America,) to be held up for a 500-year ransom because of a couple hundred fixed-duration jobs, is very much the tail wagging the dog. And the irony is that even for the lucky few that get those terminal jobs, at the end oftwenty years they will not only have to once again face unemployment, but the ultimate costs of their perfidy will be the cbmpromised environment that made them choose to live in the Hoyt Lake region in the first place.	SO02
<b>Sender Name (Submission ID)</b>	Raymond Klosowski (41230)	
8960	It will give Minnesota citizens a long term economic benefit with stabile high paying jobs, increase the annual state revenue intake providing funding for critical infrastructure improvements, health care, and education while precluding adverse impacts to our environment.	SO10
<b>Sender Name (Submission ID)</b>	Raymond Olson (54820)	

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Raymond Olson (54820)		
18443	This project needs to have a proper, independent environmental impact statement that is not paid for by the industry and packed with scientists and other persons with bias to the viewpoints of the mining company	NEPA18
18449	Many inadequacies and errors in the EIS have been pointed out. Such as inadequate and inaccurate ground water flow from Modeling. No contingency plans for pollution of waters and wetlands	NEPA09
18452	[The EIS presents] a poor plan for "financial assurance"	FIN08
18454	A longer comment period (at least 180 days) is also needed, so the facts can come out and we can make an informed decision.	NEPA06
18461	Is the DNR competent to manage this? How involved are the MPCA and the Health Department?	PER36
<b>Sender Name (Submission ID)</b> Raymond Shelerud (57199)		
17088	I am truly worried about the after effects of sulfide mining. ... Sulfide mining has never been proven to be safe for the environment.	PD26
<b>Sender Name (Submission ID)</b> Rebecca & John Gaertner (31655)		
13082	We all know they will file bankruptcy as soon as they are required to be responsible for their environmental messes.	FIN01
<b>Sender Name (Submission ID)</b> Rebecca Burich and David Zins (42881)		
16909	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone	SO10
16909	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone	SO10
16911	PolyMet Mining will contribute millions of dollars to local cities, school districts and the State through net proceed taxes, occupation taxes, and sales tax	SO10
16911	PolyMet Mining will contribute millions of dollars to local cities, school districts and the State through net proceed taxes, occupation taxes, and sales tax	SO10
16912	it is stated within the Minnesota Department of Natural Resources, US Army Corps of Engineers, and the US Forest Service's Supplemental Draft Environmental Impact Statement (SDEIS), "The SDEIS has thoroughly evaluated water quality impacts, and has shown the project will not cause an exceedance of aquatic life water quality standards."	WR190
16912	it is stated within the Minnesota Department of Natural Resources, US Army Corps of Engineers, and the US Forest Service's Supplemental Draft Environmental Impact Statement (SDEIS), "The SDEIS has thoroughly evaluated water quality impacts, and has shown the project will not cause an exceedance of aquatic life water quality standards."	WR190
16913	the metals that PolyMet will mine are essential for daily life	NEPA05
16913	the metals that PolyMet will mine are essential for daily life	NEPA05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rebecca Cramer (10204)		
370	The risk of contaminating vital waters needed for the present and future generations of people and animals outweighs any short-term gain of employment.	SO01
1438	Jobs will be created in the realm of ecotourism and sustainable use of our forest resources. That is the trend we must believe in and plan for.	SO06
1439	support industries which safely "mine" for these precious metals in the discarded equipment that has already been manufactured.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Rebecca E. Berg (42921)		
9586	the environmental risks associated with sulfide mining used to extract the Copper, Nickel and other precious metals far outweigh the potential economic gains...While jobs and job creation are an important aspect of this proposed project, the potential to cause irreversible environmental damage to the unspoiled land surrounding this area far outweighs any benefits.	SO01
9588	The by-products produced by Sulfide Mining, most notably being sulfuric acid, would create an environmental disaster if they were to leach into surrounding soil and water.	WR115
9592	Proponents of the Polymet mine have stated that the surrounding material in the proposed mine is low in Sulfide, and therefore acidic runoff would be minimal. However, ...nothing can be guaranteed.	WR025
17466	In 1998 the state of Wisconsin, in order to prevent future environmental catastrophes adopted into law "the prove it first" legislation. This important law requires that before Mining companies can begin operations, they must prove that the particular type of mine they wish to operate has functioned for ten continual years in other states or Canadian provinces without any environmental infractions. Since this law went into effect, no sulfide mining operations have begun operations within Wisconsin, being unable to show that pollution has not been an unfortunate side effect of Sulfide Mining.	PER25
<b>Sender Name (Submission ID)</b> Rebecca Ekmark (46475)		
9102	My belief is that the Polymet group has done extensive environmental research and has proven successfully that the techniques used and preventative measures they plan to use are going to help keep our waterways clean.	PD28
<b>Sender Name (Submission ID)</b> Rebecca L Rom (11615)		
2294	The SDEIS is wholly inadequate to provide definitive information about (i) about the total costs of such treatment [water treatment]; (ii) the mechanisms for providing for, requiring payment of, and insuring payment of, such costs; and (iii) the socioeconomic costs to the people of Minnesota and the nation when, as seems likely, the mechanisms for insuring payment are insufficient or fail entirely.	WR145, WR147
2294	The SDEIS is wholly inadequate to provide definitive information about (i) about the total costs of such treatment [water treatment]; (ii) the mechanisms for providing for, requiring payment of, and insuring payment of, such costs; and (iii) the socioeconomic costs to the people of Minnesota and the nation when, as seems likely, the mechanisms for insuring payment are insufficient or fail entirely.	FIN01, FIN05, FIN10
2296	The failure of the SDEIS to deal explicitly with the size and nature of the costs and financial assurance to cover these unknowable but massive costs means that it utterly fails to describe the socioeconomic risk to the citizens of the State of Minnesota and the United States if financial assurance is inadequate to deal with any possible contingency.	FIN05

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rebecca L Rom (11615)		
2296	The failure of the SDEIS to deal explicitly with the size and nature of the costs and financial assurance to cover these unknowable but massive costs means that it utterly fails to describe the socioeconomic risk to the citizens of the State of Minnesota and the United States if financial assurance is inadequate to deal with any possible contingency.	FIN05
7351	...a major flaw in the project is that the cost of engineering, designing, planning, building, and maintaining water treatment is unknowable. Any project for which the cost of water treatment is unknowable but according to the project proposer will be in the billions of dollars should not be considered for approval by the State.	FIN01, FIN05
7351	...a major flaw in the project is that the cost of engineering, designing, planning, building, and maintaining water treatment is unknowable. Any project for which the cost of water treatment is unknowable but according to the project proposer will be in the billions of dollars should not be considered for approval by the State.	FIN01, FIN05
7352	The SDEIS contains a list of imponderables, including things like physical difficulties in implementing plans, escalating environmental standards, unanticipated liabilities, unplanned cessation of operations, failure of the mining company, and failure of third parties to meet commitments. The failure of the SDEIS to deal explicitly with the size and nature of the costs and financial assurance to cover these unknowable but massive costs means that it utterly fails to describe the socioeconomic risk to the citizens of the State of Minnesota and the United States if financial assurance is inadequate to deal with any possible contingency.	FIN01, FIN05
7352	The SDEIS contains a list of imponderables, including things like physical difficulties in implementing plans, escalating environmental standards, unanticipated liabilities, unplanned cessation of operations, failure of the mining company, and failure of third parties to meet commitments. The failure of the SDEIS to deal explicitly with the size and nature of the costs and financial assurance to cover these unknowable but massive costs means that it utterly fails to describe the socioeconomic risk to the citizens of the State of Minnesota and the United States if financial assurance is inadequate to deal with any possible contingency.	WR111, WR130
<b>Sender Name (Submission ID)</b> Rebecca Lystig (18246)		
13648	PolyMet’s plan for an open-pit mine will directly destroy more than 900 acres of wetlands and threaten more than 10 square miles of additional wetlands with toxic contamination and drainage. No information is provided in the SDEIS about the amount and form of financial assurance damage deposit that PolyMet will be required to provide to cover cleanup costs extending over centuries.	FIN05, FIN08, FIN13
13649	Instead of opening new mines which will cost taxpayers and the environment, we could greatly increase recycling of copper, nickel and other metals with less impact to the environment, reduced emissions of global-warming gases and provide greater potential for jobs.	NEPA06
<b>Sender Name (Submission ID)</b> Rebecca Rom (18375)		
2568	PolyMet-NorthMet project, as described in the supplemental EIS violates Minnesota law. The provisions that it violates relate to perpetual treatment. Minnesota rules 6132.3200 does not allow perpetual treatment. It reads, "To receive a permit to mine, the permittee must be able to close the mine in such a way that it is stable, free of hazards, minimizes hydrological impact and release of substances, and is maintenance free."	PER04
5922	Our members and supporters also visit and recreate throughout the three-county Minnesota Arrowhead Region and will be directly impacted by the North Met Project.	#N/A
6304	The PolyMet SDEIS states that long-term treatment of wastewater is aided, which means the site will not be maintenance free at closure. This is over 500 years of treatment at the plant site and over 200 years of treatment at the mine site.	PD03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rebecca Scott-Rudnick (54665)		
17902	As a Minnesota resident, I am greatly concerned by the lack of clarity in the report, in particular in regard to the long-term cumulative impact of the mining on Minnesota's moose population and other habitat destruction.	WI01
17904	efforts to help protect and revitalize Minnesota's moose population cannot be forgotten or altered by the proposed Poly Met NorthMet mining.	WI01
17906	If the PolyMet plan is approved without further study of the impacts on the moose population, the current concerns of the DNR towards Minnesota's moose would not only be exacerbated, but it could alter the significant efforts already being made by DNR to understand the complex, important and potentially devastating problem at hand.	WI05
<b>Sender Name (Submission ID)</b> Rebecca Stoner (54837)		
18756	Based on the Minnesota Environmental Rights ACT, I have a statutory right to object to any pollution, impairment, or destruction of the environment and I'm asking you all to uphold that right...I feel strongly that we are all stewards of the [BWCAW] area and I will fight any type of pollution of these waters	PER35
18757	Because we have 1/5 of the world's fresh water in Lake Superior ... and the Boundary Waters Canoe Area Wilderness ( BWCAW) is the most visited wilderness area in the country because of it's fairly pristine conditions so far, I DON'T THINK THERE IS ANY REASON ON PLANET EARTH THAT ANYONE SHOULD BE ALLOWED TO POLLUTE ANY OF THIS.	WILD02
18760	[PolyMet] want us to believe that they wouldn't harm the water of the BWCAW or Lake Superior (LS) any more than anyone else is. Just because the current EPA standards are not being met by other mining operations on the Range doesn't mean that others can come in and do it also and on a much larger scale that would compound the problem.	CU01
18765	Research is showing that a statistically significant percentage of babies born on the North Shore already have high levels of mercury in them. This mining effort would worsen that also. Nobody is doing a health evaluation of the pollution of not only the runoff but also the air and groundwater pollution and I feel that should be included in any EIS that affects this many people in an already-polluted area. I join with the Duluth Medical community in protesting this aspect of it also.	HU03
18787	[PolyMet] want us to believe that their proposed sulfide-laden waste rock pile and their "Proposed Engineering Controls" wouldn't leak thru the liner they'll have on the ground for the more than 500+ years it'll take for it to all leach out. That's about the amount of time it's been since Columbus discovered America. They must think us all fools....They say that their proposed injected clay barrier wall under the waste pile and liner that attaches to the bedrock there won't leak ever.	PD15
18789	[PolyMet] state that there are no cracks in the bedrock underneath their waste rock pile that might allow for drainage to run into underground water sources there. They didn't even address it in their proposal as a possibility.	WR007
18790	They say that their "fugitive dust" that contains many pollutants including more mercury than they are willing to add up won't add anything to the pollution there so they didn't even include it in their EIS for all to read. They considered it "not an issue" but it will contain copper, nickel and mercury. Not really harmless, is it? ... It is NOT an insignificant amount and would harm everyone locally and downstream /downwind of their operations.	AIR04
18791	they say they can adequately collect and treat ALL of their wastewater during mining operations AND for 500+ years and not leave us with a Superfund area subsidized by our descendants. This is a multinational corporation, formed on purpose that way so they can skirt our laws and none of them will take the blame and pay the cost of treating anything when they've taken what they want and left the area...Their Financial Assurance that's published is flimsy at best and the whole permit should include their major funder Glencore or it should not move any further.	FIN01, FIN02, FIN10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rebecca Stoner (54837)		
18792	For their proposed "Water Evaluation Criteria", they used small site-specific area testing of each area, which they extrapolated out for the whole area that allowed the whole area of water there be degraded to the small site specific criteria. ...Basically they're saying that since this area is already polluted, we should be able to continue to pollute it to the tested amounts.	WR064, WR078, WR177
18794	When testing for solutes, they conveniently ignored and didn't publish any testing on mercury which I feel is illegal and unethical at least. They also had 2 exceptions to that list, including lead and aluminum which will also be a factor in their mining efforts and are toxic in our water supplies. Copper is another metal not in their EIS and it goes on forever way above the standards.	WR038
18796	They'll be using Colby Lake water for some of their operation and because that lake is already polluted with mercury and aluminum, and they don't need a permit to use it, they don't have to filter it or treat it. Not a good idea.	WR123, WR184
18797	Models for the mine site for base flow of the Partridge River don't match the low flow measurements. So we can't believe any of their predictions for long-term treatment. Redo the study or don't permit it.	WR003
18799	In this age of climate change, they did not address excessive rain events and what they would do to mitigate that with their systems.	PD22
18800	All of their pollution could end up in Lake Superior. Who will want to come here for tourism if our water is polluted, undrinkable, unswimmable, etc.	WR111
18803	They have not addressed mitigation for indirect impact on wetlands or wildlife travel corridors and that would need to be done before permitting. There would be destruction or degradation of >1700 acres of MN bird survey sites of High Biodiversity Significance and the land exchange proposed doesn't even come close to replacing all that will be lost.	WET01, WI02, WI03
18806	How would their product get safely to Canada from the mine? They haven't addressed that anywhere and the route would probably go thru more wilderness area.	WILD01
18808	The money received for the privilege of removing the minerals of the Arrowhead might help with our schools and the estimate is about one textbook per student. NOT worth it by any means. I understand that the DNR needs the money pretty badly so there may not be any money for schools come out of this fiasco at all. It would hire 0.012% of all MN workers for maybe 1 generation total. It would create 0.1% of MN GOP. We don't have an unemployment problem in Minnesota that is worth all this destruction.	SO07
18809	How can the DNR both protect our environment and be required to make the most money off the same land as they possibly can. These 2 mandates are contradictory and should be fixed.	PER42
18810	To substitute fairly low number of temporary jobs on the Range for probably 1 generation only, with the potential to destroy some of the most precious and abundant water resources in our country and the many thousands of tourism jobs that are here because of that water, makes no sense to me...Tourism is OUR business .. Our ONLY business. It is our livelihood and our way of life. OUR economy.	SO01
18813	Recycle valuable metals now. Reuse. Encourage international conservation of these precious metals so we can't have to destroy our local land by digging up more of them.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Rebecca Tollefson (43857)		
6871	After the mining starts would you drink the polluted water? [Animals do not] have the ability to filter their water.	WR042, WR141

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rebecca Tollefson (43857)		
14941	Its more common than not unfortunately that after mankind starts to mine, log and destruct the natural habitat that horrible catastrophic effects on Mother Nature and all of her inhabits.	SO01
<b>Sender Name (Submission ID)</b> Red Cliff Band (42974)		
3899	As this project negatively affects wetlands that are protected under our treaty rights, which reserves our right to hunt, fish, and gather within ceded territories in the 1854, 1847, and 1842 Treaties between the Lake Superior Chippewa and the United States government, we object to the destruction of such a large amount of wetlands... [in the case] that the project may still be permitted, [there is a]... need for more stringent measures to project the wetlands, particularly those wetlands sites of High BioDiversity Significance.	CR01, WET19, WET23
3902	While there is no policy or requirement to mitigate effects on the MBS sites of High Biodiversity Significance and that the mine reclamation may allow such BMS sites to reestablish, we believe that it would be in the best interest of the company and the state to establish mitigation plans for these wetlands. They are unique and of value to the Red Cliff Band of Lake Superior Chippewa and all other Chippewa tribes. Considering their uniqueness and value, there should be mitigation in place that properly reflects the uniqueness and extreme sensitivity of these areas.	CR01
3903	Red Cliff would like to reiterate that the water flow hydrology has been inadequately characterized, and would like to see the XPSWMM's projections be recalibrated with more recent and more local data. The current projections used data from 1978-1987 and from a site over 17 miles away. This results in a low estimate of baseflow and results in data that are not only inaccurately, but underestimates the potential for negative hydrological effects caused by the project.	WR003
3904	We also feel that it is reasonable to plan for higher levels of precipitation than historical records have shown due to the unfathomably long duration of this project and potential impacts of climate change, 100 year floods, and the potential of extreme weather events.	WR077, WR180, WR189
3905	The IMPLAN Study is based on study that was developed in the 1970s. Many in the academic community considered it obsolete. This IMPLAN Study only measures positive impacts and not negative impacts. Thus we feel that the potential socioeconomic factors of the NorthMet project are not being properly related to the public.	SO04
4001	Another problem with the analysis is the lack of distinction between full time, part time, seasonal, and permanent positions. It also does not make a distinction between which jobs will be available during certain periods such as how many employees during opening, full operation, closure, and reclamation. These are important distinctions to be made to determine the value of the jobs that are being offered by NorthMet and this project.	SO04
4004	no trade union agreement was mentioned [in the SDEIS], making the possibility of non-local (out-of-state) workers to make up the majority of the positions.	SO06
4005	The proposed private land being offered in exchange is problematic. It is not contiguous and some parcels are located in other counties. This would complicate the manner in which the US Forest Service cares for these tracts and likely be a greater financial burden to the agency. The parcels in question include the Lake County Land Tracts in Lake County and the McFarland Lake Tracts in Cook County.	LAN07
4016	The tribe feels that the underground mine shaft could be a potential alternative that is less destructive and would remove the need for the proposed land exchange... The underground mine shaft would reduce many of the problems that the Red Cliff Band of Lake Superior Chippewa has with this SDEIS. The underground mine shaft alternative would have a positive impact on ambient air quality, wetlands and the need for wetland mitigation, and likely reduce the reclamation period.	ALT01

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**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Red Cliff Band (42974)

4019 [The underground mining] alternative was dismissed as being economically infeasible, but a more in-depth analysis into the economic feasibility has not been released into the public... We believe that the environmental benefits, cultural uses, and historical properties outweigh the socioeconomic costs [of the underground mine alternative] and that the NorthMet Company should reassess how much they may save in reclamation/closure costs, taxes, employee wages, and potential fines from violated permits. Lastly, it appears extremely unrealistic that NorthMet can expect several centuries of treatment of their facility after closure, but cannot afford the underground mine shaft alternative. ALT01

4091 Other problems with the economic aspects of the SDEIS include the absence of a minimum/maximum budget for paying employees' salaries and where these jobs will be located. The highest paid employees for many mining operations and similar projects are lawyers and engineers who do not live in the immediate area of the actual project themselves, therefore are not directly contributing to the most immediate local economy. SO04

**Sender Name (Submission ID)**    Regan J Scuffy (54647)

17994 I feel that PolyMet, The State of Minnesota and the federal agencies have done a great job on drawing up the second EIS draft and making sure that they are totally in compliance with the regulations. NEPA16

17997 I also feel that the project would be a huge economic benefit to the Iron Range and also for the State of Minnesota. The job opportunities alone that would be created from this project would be a plus for the families that live and want to stay in Northern Minnesota. ... I have been a resident of Northern Minnesota for 40 years and I can't see this mining process being any worse than other mining that is or has taken place across the Iron Range, especially with today's regulations. SO10

**Sender Name (Submission ID)**    Reginald Defoe (19511)

14823 why would we further damage the area, the watershed, by opening up the sulfuric mining operations and to damage it any further when we're spending millions and millions of dollars on cleaning up an area that once used to be pristine with thousands and thousands of acres of wild rice. WR111, WR115, WR162

**Sender Name (Submission ID)**    Reid Carron (11540)

2491 ..... "allowing private surface mining would be inconsistent with USFS legal mandates for acquiring and managing these lands" [under the Weeks Act.] The SDEIS fails to address adequately the socioeconomic cost of the loss of intact, contiguous existing habitat at the mine site or to assess the relative value of the non-contiguous lands to be acquired in exchange. The SDEIS does not explain how the USFS can abandon its responsibilities to manage Weeks Act land for habitat and watershed protection and thereby inflict harm upon the socioeconomic well-being of citizens through the simple expedient of a land exchange that does not even pretend to replace lands lost in the Lake Superior Basin. LAN02

2491 ..... "allowing private surface mining would be inconsistent with USFS legal mandates for acquiring and managing these lands" [under the Weeks Act.] The SDEIS fails to address adequately the socioeconomic cost of the loss of intact, contiguous existing habitat at the mine site or to assess the relative value of the non-contiguous lands to be acquired in exchange. The SDEIS does not explain how the USFS can abandon its responsibilities to manage Weeks Act land for habitat and watershed protection and thereby inflict harm upon the socioeconomic well-being of citizens through the simple expedient of a land exchange that does not even pretend to replace lands lost in the Lake Superior Basin. LAN02

3533 The SDEIS does not attempt to reconcile the effects of the proposed exchange of Superior National Forest lands and of the destruction of wetlands with the socioeconomic protections provided to citizens by the federal Weeks Act, the National Environmental Policy Act, the Minnesota Environmental Rights Act, and the Minnesota Environmental Policy Act. LAN02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Reid Carron (11540)	
3534	At and near the mine site, the project would destroy 913 acres of unique wetlands, plus many hundreds of additional acres of lands of high biodiversity significance, including imperiled and vulnerable plant communities.	VEG02, VEG03
3535	These lands [at or near the mine site] are currently owned by the U.S. Forest Service in the Lake Superior Basin; virtually all of the wetlands mitigation is outside that Basin, at substantial distances from the habitat that would be fragmented and destroyed by the mine.	WET03, WET15
3536	The project would indirectly affect thousands of acres of other wetlands in the Partridge and Embarrass River watersheds by pollution and changes in hydrology; the SDEIS fails to address any mitigation of the great majority of this wetlands damage except to say that damage would be “monitored” after permitting and additional compensation may be required	WET01
3537	The SDEIS fails to address adequately the socioeconomic cost of the loss of intact, contiguous existing habitat at the mine site or to assess the relative value of the non-contiguous lands to be acquired in exchange.	SO04
3538	The SDEIS does not explain how the USFS can abandon its responsibilities to manage Weeks Act land for habitat and watershed protection and thereby inflict harm upon the socioeconomic well-being of citizens through the simple expedient of a land exchange that does not even pretend to replace lands lost in the Lake Superior Basin.	LAN02
3539	the SDEIS is inadequate because of its failure to acknowledge that the proposed project ignores basic socioeconomic rights to a clean environment guaranteed by Minnesota law.	PER35
3543	The SDEIS fails to use a credible calculation of the groundwater flow in the Partridge River watershed. Tribal hydrologists and Minnesota Department of Natural Resources staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS	WR003, WR086, WR091
3546	The SDEIS must be revised to disclose, with objective data, how much water would go where; the pollution levels that would exist at each pond, sump, waste pile, waste facility and seep; and the actual field experience alleged to demonstrate that the PolyMet plan would meet water quality standards	WR023, WR060, WR181, WR182, WR195
3547	The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to assert that threats to wild rice, fish and human health from tailings basin discharge will be minimal	HU01
3548	The SDEIS must be revised using accurate and complete predictions about the effect of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet’s own reports for the Canada stock exchange reveal significant faults and fractures.	WR010, WR069
3549	The SDEIS is inadequate because it does not provide a comprehensive cost-benefit analysis of the proposed project. The industry-financed University of Minnesota-Duluth/Skurla report that features prominently in the SDEIS inflates the alleged benefits of sulfide-ore mining and fails to address significant short-term and long-term negative environmental and economic impacts of such mining.	SO04
3550	The SDEIS is inadequate with respect to its treatment of the alleged economic output of the proposed project. Job numbers and economic activity numbers are not credible. The widely-discredited IMPLAN model that Mr. Skurla used in the UMD study generates pie-in-the-sky numbers—hundreds of millions of dollars—in alleged economic output. At page 5-496, the SDEIS admits that the IMPLAN numbers amount to creative writing... The SDEIS also states that IMPLAN does not model the impact of changes in mining technology.	SO04
3552	The SDEIS fails to address adequately the staggering costs of NorthMet. The UMD report admits that it ignores those costs.	SO04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Reid Carron (11540)	
3553	The SDEIS fails to address adequately the negative impact of mining on other economic activity.	SO04
3554	the SDEIS simply speculates, without using any comparative data on the effect of mine closure on real estate or the effect of mining on recreationists, tourists, and retirees.	SO04
3557	the SDEIS appears to be silent on the effect of the permanent destruction of thousands of acres of wetlands and other habitat on wildlife populations.... Without baseline population studies and comparative data, the SDEIS assertions are not credible.	WI02
3560	the SDEIS fails to define the human health effects of increased mercury emissions, arsenic, and exposure to asbestos-like mineral fibers.	HU01
3565	The SDEIS fails to clearly state the expected amounts of mercury that will be released into surrounding watersheds over time, and does not estimate the amount of mercury likely to affect significant water bodies downstream from the project, particularly the St. Louis River and Lake Superior Basin.	MERC19
3566	The SDEIS does not examine the possible health impact of dust containing asbestos-like amphibole fibers.	HU05
4248	The SDEIS does not attempt to correct the effects of the proposed exchange of Superior National Forest lands and of the destruction of wetlands with the protection provided to citizens by the Federal WEEKS Act, the National Environmental Policy Act, the Minnesota Environmental Rights Act, and the Minnesota Environmental Policy Act.	LAN02
4249	The mine site project would destroy 913 acres of unique wetlands, plus many hundreds of acres of lands of high (inaudible), including (inaudible).These lands are currently owned by the US Forest Service in the Lake Superior Basin. Virtually all of the wetlands in mitigation in that site and basin are substantial distances from the habitat that would be fragmented and destroyed by the mine.	WET03, WET15
4250	The project indirectly affects thousands of acres of other wetlands in the Partridge and Embarrass River Watershed by pollution and changes in hydrology. The SDEIS fails to address any mitigation of a great majority of this wetlands exchange except to say that they have to be monitored after permitting and additional compensation may be required.	WET01
4251	The SDEIS admits that allowing private surface mining would be inconsistent with the US Forest Service legal mandate for acquiring and managing these lands.	LAN02
4252	The SDEIS fails to address adequately the socioeconomic cost of the loss of intact contiguous existing habitat at the mine site or the relative value to non-contiguous lands to be acquired in exchange.	SO04
4254	The legislature declared in Section 116B4 of the Minnesota Environmental Rights Act that the state has a paramount concern for the protection of its air, water, land, and other natural resources from pollution, impairment, or destruction. The statute explicitly states economic considerations alone shall not constitute a defense to violations of the Environment Rights Act.	PER35
6739	The SDEIS fails to address adequately the staggering costs of NorthMet. The UMD report admits that it ignores those costs. Appendix B of that report says, at page 67:"Readers are encouraged to remember the Bureau of Business and Economic Research is providing an economic impact analysis. Policy recommendations should be based on the 'big picture' of total impact, and a cost-benefit analysis would be needed to assess the environmental, social, and governmental impacts of ferrous and non-ferrous mining in the State... [A]detailed cost-benefit analysis is beyond the scope of this report..."	SO04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Reid Carron (11540)	
7444	The SDEIS does not attempt to correct the effects of the proposed exchange of Superior National Forest lands and of the destruction of wetlands with the protection provided to citizens by the Federal WEEKS Act, the National Environmental Policy Act, the Minnesota Environmental Rights Act, and the Minnesota Environmental Policy Act. the proposed project ignores basic rights to a clean environment guaranteed by Minnesota law. It acknowledges that the project will destroy or impair thousands of acres of land, pollute the water for at least hundreds of years.	LAN02
7444	The SDEIS does not attempt to correct the effects of the proposed exchange of Superior National Forest lands and of the destruction of wetlands with the protection provided to citizens by the Federal WEEKS Act, the National Environmental Policy Act, the Minnesota Environmental Rights Act, and the Minnesota Environmental Policy Act. the proposed project ignores basic rights to a clean environment guaranteed by Minnesota law. It acknowledges that the project will destroy or impair thousands of acres of land, pollute the water for at least hundreds of years.	LAN02
7446	The project indirectly affects thousands of acres of other wetlands in the Partridge and Embarrass River Watershed by pollution and changes in hydrology. The SDEIS fails to address any mitigation of a great majority of this wetlands exchange except to say that they have to be monitored after permitting and additional compensation may be required.	WET01
7446	The project indirectly affects thousands of acres of other wetlands in the Partridge and Embarrass River Watershed by pollution and changes in hydrology. The SDEIS fails to address any mitigation of a great majority of this wetlands exchange except to say that they have to be monitored after permitting and additional compensation may be required.	WET01
15471	The SDEIS is inadequate because it does not provide a comprehensive cost-benefit analysis of the proposed project. The industry-financed UMD report that features prominently in the SDEIS inflates the alleged benefits of sulfide-ore mining and fails to address significant short-term and long-term negative environmental and economic impacts of such mining.	SO04, SO07
15476	The SDEIS is inadequate with respect to its treatment of the alleged economic output of the proposed project. Job numbers and economic activity numbers are not credible. The widely-discredited IMPLAN model that Mr. Skurla used in the UMD study generates pie-in-the-sky numbers – hundreds of millions of dollars – in alleged economic output. At page 5-496, the SDEIS admits that the IMPLAN numbers amount to creative writing; the SDEIS states that employment depends on metal prices, that mining is boom and bust, and that although "this boom and bust phenomenon is often present in mining communities, IMPLAN does not model this phenomenon" because it is unpredictable.	SO04, SO08
15484	The SDEIS also states that IMPLAN does not model the impact of changes in mining technology. At minimum, the SDEIS should provide historical data with regard to the economic impacts of boom-and-bust in existing copper-mining areas, and with regard to the relentless drive toward mining automation that has caused dramatic output increases per employee and has drastically reduced mining employment in the United States.	SO04, SO08
15496	The SDEIS fails to address adequately the negative impact of mining on other economic activity. Objective studies and the reality of the Iron Range show that time and again mining drives out other economic activity. The reasons are the environmental degradation, boom-and-bust disruption, and political bullying – think about the Highway 53 re-route – that follow the billionaire mining companies, as the night follows the day. Mining results in less overall employment and poorer communities.	SO04
15501	At 5.2.10, the SDEIS says this:"Housing: Reclamation and Closure: (During this period) ... it is likely that demand for housing would drop as workers migrate from the area ... However increases in housing demand spurred by the strength of the tourism industry and the increasing popularity of the study area for retirement could obscure any such declines."The SDEIS is inadequate because it fails to analyze the effect of increased mining industrialization and the associated environmental degradation on the desirability of the area for recreation, tourism, and retirement; the SDEIS simply speculates, without using any comparative data on the effect of mine closure on real estate or the effect of mining on recreationists, tourists, and retirees.	LU06, SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Reid Carron (11540)	
15507	With regard to wildlife and the prospects for hunting and wildlife viewing (both of which are key attractors for recreationists, tourists, and retirees) in the surrounding area if the project proceeds, the SDEIS blithely states at page 5-513 that "overall opportunities for hunting and wildlife viewing on public lands in the region are not expected to change substantially." While admitting that the mine might cause game to avoid the area, the SDEIS appears to be silent on the effect of the permanent destruction of thousands of acres of wetlands and other habitat on wildlife populations. It is nonsensical to assume that populations will remain robust in surrounding areas in the face of the loss of thousands of acres of high-quality habitat for breeding, forage, and shelter. Without baseline population studies and comparative data, the SDEIS assertions are not credible.	LU06
17075	the SDEIS is inadequate because of its failure to acknowledge that the proposed project ignores basic socioeconomic rights to a clean environment guaranteed by Minnesota law. The SDEIS acknowledges that the project will destroy or impair thousands of acres of land, that it will pollute the water for hundreds or thousands of years, and that it will create other harmful environmental impacts such as air and noise pollution.	PER35
17133	At and near the mine site, the project would destroy 913 acres of unique wetlands, plus many hundreds of additional acres of lands of high biodiversity significance, including imperiled and vulnerable plant communities. These lands are currently owned by the U.S. Forest Service in the Lake Superior Basin; virtually all of the wetlands mitigation is outside that Basin, at substantial distances from the habitat that would be fragmented and destroyed by the mine.	WR107, WR108
17133	At and near the mine site, the project would destroy 913 acres of unique wetlands, plus many hundreds of additional acres of lands of high biodiversity significance, including imperiled and vulnerable plant communities. These lands are currently owned by the U.S. Forest Service in the Lake Superior Basin; virtually all of the wetlands mitigation is outside that Basin, at substantial distances from the habitat that would be fragmented and destroyed by the mine.	WET03, WET15
17136	The currently intact landscape at the mine site has significant socioeconomic value for wildlife habitat, watershed protection, and carbon sequestration. The SDEIS does not explain how the USFS can abandon its responsibilities to manage Weeks Act land for habitat and watershed protection and thereby inflict harm upon the socioeconomic well-being of citizens through the simple expedient of a land exchange that does not even pretend to replace lands lost in the Lake Superior Basin.	SO02
17136	The currently intact landscape at the mine site has significant socioeconomic value for wildlife habitat, watershed protection, and carbon sequestration. The SDEIS does not explain how the USFS can abandon its responsibilities to manage Weeks Act land for habitat and watershed protection and thereby inflict harm upon the socioeconomic well-being of citizens through the simple expedient of a land exchange that does not even pretend to replace lands lost in the Lake Superior Basin.	SO02
17137	Further, the SDEIS is inadequate because of its failure to acknowledge that the proposed project ignores basic socioeconomic rights to a clean environment guaranteed by Minnesota law. The SDEIS acknowledges that the project will destroy or impair thousands of acres of land, that it will pollute the water for hundreds or thousands of years, and that it will create other harmful environmental impacts such as air and noise pollution.	WET01, WET04
17137	Further, the SDEIS is inadequate because of its failure to acknowledge that the proposed project ignores basic socioeconomic rights to a clean environment guaranteed by Minnesota law. The SDEIS acknowledges that the project will destroy or impair thousands of acres of land, that it will pollute the water for hundreds or thousands of years, and that it will create other harmful environmental impacts such as air and noise pollution.	WR115, WR195

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Reid Carron (11540)		
17138	The legislature has declared in Section 116B.04 of the Minnesota Environmental Rights Act that the state has a "paramount concern for the protection of its air, water, land, and other natural resources from pollution, impairment, or destruction." Section 116B.02 Subd. 5 says that " 'pollution, impairment, or destruction' is," among other things, "any conduct by any person... which materially adversely affects or is likely to materially adversely affect the environment." The statute states explicitly that "economic considerations alone shall not constitute a defense" to violations of MERA. The Minnesota Environmental Policy Act, at Section 116D.04 Subd. 6, uses similar language to prohibit the issuance of any permit for any action where the action would cause "pollution, impairment, or destruction of the air, water, land, or other natural resources.... Economic considerations alone shall not justify such conduct." Accordingly, the SDEIS is inadequate with respect to these important points.	PER35
17138	The legislature has declared in Section 116B.04 of the Minnesota Environmental Rights Act that the state has a "paramount concern for the protection of its air, water, land, and other natural resources from pollution, impairment, or destruction." Section 116B.02 Subd. 5 says that " 'pollution, impairment, or destruction' is," among other things, "any conduct by any person... which materially adversely affects or is likely to materially adversely affect the environment." The statute states explicitly that "economic considerations alone shall not constitute a defense" to violations of MERA. The Minnesota Environmental Policy Act, at Section 116D.04 Subd. 6, uses similar language to prohibit the issuance of any permit for any action where the action would cause "pollution, impairment, or destruction of the air, water, land, or other natural resources.... Economic considerations alone shall not justify such conduct." Accordingly, the SDEIS is inadequate with respect to these important points.	PER35
17348	At minimum, the SDEIS should provide historical data with regard to the economic impacts of boom-and-bust in existing copper-mining areas, and with regard to the relentless drive toward mining automation that has caused dramatic output increases per employee and has drastically reduced mining employment in the United States.	SO04
17349	The SDEIS is inadequate because it fails to analyze the effect of increased mining industrialization and the associated environmental degradation on the desirability of the area for recreation, tourism, and retirement....	CU11
<b>Sender Name (Submission ID)</b> Reka Crohn (14680)		
13786	The very small number of potential jobs created and the economic benefit to the local region from this mine is in no way, shape, or form adequate recompense for the almost certain destruction of the environment.	SO01
13787	500 years of polluted water treatment... and that is the BEST case scenario? In the light of recent environmental events such as the chemical spill in West Virginia, for-profit corporations must be held to an even higher standard for protecting the public in their effort to make a buck	FIN01
<b>Sender Name (Submission ID)</b> Remy Lee (11589)		
3250	I want you to stop them from mining this is something that will only benefit the state in the short term, long term it will destroy lots of habitats, clean water, and just be plain bad.	SO01
3250	I want you to stop them from mining this is something that will only benefit the state in the short term, long term it will destroy lots of habitats, clean water, and just be plain bad.	SO01
<b>Sender Name (Submission ID)</b> Renae Rodgers (42917)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Renae Rodgers (42917)		
11341	after the NorthMet mine closes... “mechanical water treatment is part of the modeled NorthMet Project Proposed Action for the duration of the simulations (200 years at the Mine Site, and 500 years at the Plant Site) (SDEIS, 5-7)...there is no plan laid out for ensuring that PolyMet fulfills the water treatment requirements after mining operations have ceased...In the event that PolyMet, for whatever reason is unable to keep up the requisite water treatment before the 500 years is up at the mining site, what safeguards would be put in place to ensure that water treatment would continue?	WR035
11349	... it is very possible, even likely, that the PolyMet Mining corporation will not be around in 200 to 500 years to supervise, much less pay for, the extended water treatment required by this proposed short-term mining project. In the event the PolyMet Mining declares bankruptcy, who will pay for the cost of water treatment?...The public is then left to conclude that the cleanup will become part of the public tax burden	FIN01
11355	The public is then left to conclude that ... Minnesota's landscapes and wildlife will be abandoned to badly acidified waters and crippling levels of heavy metal contamination	WR107, WR108
11361	the SDEIS states in several places that the most effected bodies of water would be the Partridge and Embarrass rivers in the St. Louis River watershed, and that both the Boundary Waters Canoe Area and Voyageurs National Park will be spared any adverse effects. However, the prospective processing of the copper-nickel sulfide ores has the potential to release enormous amounts of sulfur dioxide into the atmosphere; these emissions would bring acid rain to the entire region, not just to the St. Louis River watershed.	AIR09
17425	the SDEIS suggests that, “[t]he sulfide sulfur (S) concentrations of the NorthMet waste rock would be relatively low compared to many other mines,” but no evidence is provided in support of this assertion (SDEIS, 2013).	PD15
17426	The mine proposal has been updated to allow for subaqueous disposal of...waste rock, in order to minimize oxidation of sulfur into sulfur dioxide, the cause of acid rain, and the mobilization of heavy metals. However, safely transporting the tailings to the mine pits will be expensive, and there is no clear strategy for how the company will fund subaqueous disposal of all sulfide-bearing waste rock accumulated during the operational life of the mine.	PD25
17429	the release of sulfur during ore extraction, transportation and processing, which is potentially the most destructive and immediate source of SO <sub>2</sub> , is not addressed at all in the SDEIS. There are no proposals in the document for trapping sulfur dioxide resulting from the smelting or ore conversion processes. These emissions...would cause acid rain ... [which would have] detrimental effects on forested areas due to mobilization of ... heavy metals within the watersheds...the effects of the sulfur emissions would likely extend beyond the waters of the St. Louis River watershed and would have negative and long-lasting consequences for the entire northern Minnesota region	AIR02, MERC08
17430	In addition to threatening waters beyond the St. Louis River watershed, acid rain would cause direct damage to flora and fauna, endangered and otherwise across northern Minnesota	VEG06
17431	The SDEIS fails to adequately address the potential for acid rain as a result of the NorthMet copper-nickel mine and fails to present strategies for capture and mitigation of oxidized sulfur...there is no mention at all of the potential for acid rain due to mining or processing in either the SDEIS chapter entitled “Environmental Consequences,” or the chapter, “Cumulative Effects.”	AIR11
17433	the trade-off of a couple of decades of mining for several centuries of water treatment combined the lack of a fall back plan should PolyMet fail to meet its commitment to treat water contaminated by the mine are all indications of the inadequacy of, and important gaps in, the mining proposal and its environmental review.	NEPA15
<b>Sender Name (Submission ID)</b> Renee Aro (19907)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Renee Aro (19907)		
1500	For some 200 jobs, I won't want to loose hundreds of others which find their livelihood based on the beauty of this area.	SO01
1501	I am also very concerned about the mitigation money to be set aside for repairing our precious lakes and land.	FIN11
14837	It is my understanding that Polymet has never operated a mine before so they have no track record. But Glencore's record is rather unsavory beginning with its association with MARC RICH	PD23
15440	What assurances does the public have that needed and required financial assurance will exist for the 200 years water needs to be treated? Who is guardian of these funds and what guarantees are in place so funds won't be diverted to other projects. What laws protect these funds at all level of government. Will the State of Minnesota have access to these funds to borrow, to use for other things?	FIN01, FIN08, FIN11
<b>Sender Name (Submission ID)</b> Renee M Manning (3075)		
568	They will produce needed metals and create hundreds of jobs that can support families and sustain communities.	SO10
569	PolyMet is committed to utilizing the best available emission control devices possible on all their mobile mining equipment.	AIR14
<b>Sender Name (Submission ID)</b> Renee Valois (21574)		
10093	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	FIN01, FIN08, WR035, WR128, WR144
10097	In addition to this direct destruction of habitat, sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream.	AQ05, WR156
10100	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
10102	A paltry twenty years of profit for that company could create hundreds of years of toxic runoff and water pollution!	SO01, WR115
<b>Sender Name (Submission ID)</b> Rep David Hill (18082)		
3205	But [the Iron Range Delegation of Legislators] are here tonight as a group to tell you people that we unilaterally and unequivocally support the development of non-ferrous minerals in Minnesota until such time it is proven by the data-driven outcomes that it cannot be done, and then we are unilaterally against it until such time that we can prove that it is feasible, environmentally and financially.	NEPA16
<b>Sender Name (Submission ID)</b> Rep. Barb Yarusso (42916)		
3847	From the point of view of a chemical engineer, the SDEIS does not adequately account for all of the material outputs of the project. Amounts consumed by the process are listed for a variety of process chemicals, but there is no description of where they will end up. They can't just disappear. Will they degrade (into what?)? End up in the tailings, concentrate, sludge disposed of offsite, discharged water?	PD30

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rep. Barb Yaruso (42916)		
3848	The assessment of the probability of a spill of potassium amyl xanthate (PAX) during transportation to the site is judged to be “moderate”. According to the modeling estimate, there is approximately a 1/60 chance of a spill due to a highway accident over the 20 year working period of the mine... Are local communities prepared to handle these specific hazards?	HAZ06
3850	Will there be residual PAX on the copper concentrate which is to be shipped out by rail? Will this cause an odor issue as it degrades and gives off hydrogen sulfide?	HAZ04, HAZ06
3852	The bedrock under the tailings basin is assumed to be a “no flow boundary”. What effect will the possible lowering of the pH in the basin over time due to the addition of acid-producing tailings be on this? Will it have any effect on whether small fissures grow, or on the integrity of the boundary between the bedrock and the bentonite barrier at the walls?	WR001, WR099
3855	Is there any historical data or anecdotal information to indicate that well water quality in the area changed after the start of previous mining operations at the site?	WR041
3857	Descriptions of the use of reverse osmosis to treat water for discharge focus on sulfate concentrations. Will the process also remove copper, nickel, and other heavy metals?	PD03, WR131, WR143
3859	What is the potential environmental impact of concentrate spilled along the railway when it is shipped out for processing? The area between the plant and Lake Superior has several trout streams. How close are the tracks to these or other streams or rivers, do tracks cross any of them, what would the cumulative impact of spills be on aquatic life?	PD36, WR151
3862	Is there ever going to be a time when the potential of environmental harm from the tailings and other materials left behind will cease? The modeling did not address this question, but Minnesota law doesn’t allow for perpetual harm. There should be modeling of the long term time evolution of the concentrations of components of interest.	PD29
3863	There is the hope (but not a guarantee) of development of a passive, biological system – is this to address sulfate issues? I can’t see how it could help with heavy metals, because you can’t make them go away.	WR137
3864	Would it make more economic (and environmental) sense to use a system that increases rather than minimizes oxygen contact with the tailings in order to exhaust the potential for sulfate formation, while treating the water, to eliminate the indefinite treatment of polluted water at the site?	PD32, WR029
3865	Is there any point along the Embarrass, Partridge, or St. Louis Rivers where heavy metals would tend to precipitate (due to local chemistry) and accumulate?	WR197
3866	What is the oldest facility that has a liner of the type to be used for the hydrometallurgic residue facility? What does the manufacturer say about the expected lifetime?	PD17
<b>Sender Name (Submission ID)</b> Rep. Diane Loeffler (44962)		
8470	It is noted that exceedences on lead levels can be expected during times when there is a lot of natural runoff in addition to that created on site...Why should exceedences on this known dangerous pollutant be in any way acceptable and why were these not flagged as unacceptable and in need of lasting prevention and mitigation?	WR082

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Rep. Diane Loeffler (44962)	
8480	The recent studies of wild rice impacts of the expected pollutants threatens a historic and cultural resource to the Native Americans and all residents of our state and a valueable source of food and habitat for key Minnesota species. Insufficient assessment of alternatives that would preserve, not mitigate this unique historic, cultural, diet, and habitat resource are noted and deserve specificity and the honoring of Treaty rights. Why has this area not been more sufficiently analyzed?	WR156
8490	Not enough science and successful modeling has been presented to give confidence to the public on the scientific basis on which to assure sufficient protection of the waters of northern Minnesota. The limited availability of proven models supports a more cautious approach that requires demonstration sites and laboratory demonstrated sustainability. Why have small demonstration sites and implementation models of the proposed processes not been required as part of the establishment of a scientific analysis of the validity of the proposed protections?	WR189
8491	There is no demonstrated capacity for the state to develop and implement models of financial assurance that will adequately enable continuous monitoring and environmental response for many centuries... Given that the company proposing the mine has international ownership, is U.S. and MN law sufficient to enforce actions against that entity and or its successors? Should the "no action" alternative be adopted until such time as there is established scientific confidence that risks can be managed and funded within a time period of less than 75 years?	FIN01
8496	A better alternative would be to challenge our University and others to develop and test safer approaches to mineral extraction that present dramatically less long term risk to the waters, natural habitat, cultural traditions, and long term economic sustainability of the diverse economy of the state.	ALT16
8499	Impact of the proposed land transfer on the value of the US Forrest for recreational use, continuous large lots for natural wildlife communities to prosper, and the air and water quality of the area are insufficiently analyzed. How has it been determined that the proposed tracks for swapping are in any way able to replicate the same environmental values to all species and wetland and forest benefits?	LAN03
8504	Fragmentation and decrease of large contiguous, undisturbed critical habitat threatens a variety of species, particularly the lynx but also at least four other species. The Superior Forrest is a unique habitat not replaceable by scattered site acquisition of alternative lands... Based on this, the proposed land swap does not adequately preserve the natural heritage of Minnesota and should be rejected.	WI01, WI02
8511	It is noted that it is not "practicable" to replace all impacted wetlands types with equivalent in kind wetland areas. Practical is not an acceptable standard... All kinds should be mitigated with at least the same amount and type in similar areas surrounded by large tracks of natural forested habitat. What other habitat and ecosystem mitigation can be required to achieve the same ecological benefit in diverse natural wetlands?	WET05
10024	The Minnesota Constitution clearly limits the purposes and processes for long term obligations of the state. Can the need to maintain, monitor, and fund risk related activities for periods measured in centuries be defined as a ongoing financial obligation of the state? If so, under what authority other than specific, direct legislative act can authorize such longterm obligations and is that able to be delegated? How is that supported by recent Supreme Court rulings?	FIN01, FIN14
10025	Minnesota has a long history of "pollutor pays" even for clean up of environmental risks that were not known or identified at the time of the polluting event or processes. How can that be enforced against pollution risks not identified or anticipated at this time? How will that added potential risk and obligation be accomodated in financial assurance?	FIN01
10026	What testing evidence is available that the proposed liners, membranes, and other containment and protection materials are sufficient to last through 500 or more centuries without deterioration, cracks, or other material failure given the wide range of geologic, climate and other stressors it may be subjected to in addition to the passage of more time than any man made synthetic material of this type has existed?	PD22

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rep. Jean Wagenius (42977)		
3870	PolyMet placed monitoring wells without an understanding of the groundwater hydrology. Further, it only placed wells on the mining site. DNR needs to ensure that it understands how ground water is moving in, off and around the site before it determines when PolyMet’s monitoring is sufficient.	WR007, WR008, WR071, WR079
3871	PolyMet’s would like to have two waste rock storage sites without liners on the bottom. That proposal does not meet Minnesota Statute section 103H.001 or Minnesota Rules Chapter 7050. Liners can be practically achieved in 2014. Moreover, PolyMet prides itself on wanting to mine minerals for the next generation of productions while meeting the last generation standard for its own landfills. That is not acceptable. If the DNR were to permit a landfill without a bottom liner, then the financial assurance/damage deposit would need to be sufficient to remediate the contamination of the groundwater.	FIN14, PD02
3877	DNR must also require enough financial assurance/damage deposit to compensate for any loss of our native wild rice stands. While we have science to support a 10 parts per million sulfate standard, that standard alone may not be strong enough to protect wild rice over time.	FIN11, WR160
7948	PolyMent is seeking to mine in an area of the state that doesn't yet have a Geologic Atlas. As a result, little is known about the groundwater hydrology of the area. The borings that have been done were designed to understand mineral deposits and not for understanding the hydrology in the area.	WR007, WR008, WR071
7949	In order to develop an intelligent monitoring system, it is critical to have an understanding of how groundwater moves in, off, and around the project site before placing monitoring wells to track groundwater hydrology.	WR007, WR008, WR071, WR139
<b>Sender Name (Submission ID)</b> Rep. Jim Swiderski (42886)		
3607	The NorthMet project and land exchange is being proposed at a time far removed from mining ventures of the distant past... Regulations are in place today insuring not only that every environmental impact is monitored and regulated, but that companies responsible have strong financial assurances guaranteeing that sufficient resources are available to restore mining sites and prevent future environmental damage.	FIN16, FIN17
3740	The land exchange negotiated between PolyMet, Inc., the proponent of the NorthMet project, and the USFS, will enhance the overall resources of the Superior National Forest, and enable the USFS to better meet its long term mission. There will not be an environmental degradation to these existing forest lands, as the project is designed.	LAN11
3741	Overall, there will be an increase in forest lands available for management, and the expansion of public recreation areas, which will complement and enhance the attractions for tourism and recreation, a vitally important business of Northeastern Minnesota.	LU07
3743	The SDEIS has demonstrated that the NorthMet Project can achieve an unprecedented goal of sulfate emissions of less than 10 mg/1, a standard that will in fact improve the water quality of the nearby Embarrass River.	WR190
3744	The NorthMet project will re-use the former LTV taconite mine and plant, cleaning up this site and recycling valuable infrastructure.	PD28
3745	[T]he plan for site reclamation will restore both the mining and project site to a natural environmental state, encapsulating the waste rock and preventing acid rock drainage into the foreseeable future. I believe the NorthMet Project will set a standard for excellence that will pave the way for future responsible mineral development in this region.	PD28

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Rep. Jim Swiderski (42886)	
3747	The NorthMet Project will produce over 500 construction jobs for this region and 350 permanent jobs over the life of this mine. However, there are many thousands of additional jobs at stake in the future development of the Duluth Gabbro Complex which, if done correctly, promises an economic opportunity for the next 100 to 200 years. Not unlike the past 132 years of iron ore and taconite mining that have sustained the economy of this region, environmentally responsible mining in the Duluth Gabbro Complex can be an economic boon for residents.	SO10
3750	One must also take into account the secondary jobs created as well. There will be businesses supplying materials to the copper-nickel mining industry in this region. There will be businesses providing food, clothing and shelter. Transportation, health care, education: all economic sectors of the economy will receive a positive impact from the mining activity proposed in this region.	SO10
3753	Beyond the direct and indirect jobs created, responsible development of the copper-nickel reserves of the Duluth Gabbro is also a serious strategic national priority. Today the USA imports 100% of the nickel and over 1 j 3 of the copper needed in modern industry, critical to our national economic development as well as to our national defense. In addition, platinum and a host of other strategic minerals appear to exist in significant enough quantities to be extracted economically.	SO10
3761	To those who say we can get these minerals from other sources, I would argue that is a short sighted alternative.	PD28
3764	The metals that will be mined in this region are critical and essential to our modern computer, electronics, and communications industries. In addition, these metals are essential for the development of green technologies that will improve our air quality, create energy independence for our nation, and reduce carbon emissions that threaten our climate worldwide.	SO10
3766	Without these metals, we cannot have a green future. Without American production of these minerals we put our nation at risk in a dangerous world. These factors must be taken into consideration when weighing the costs and benefits of the NorthMet Project, and it would be irresponsible for us to do otherwise.	SO10
3769	While the environmental review process for the project is still ongoing, I am convinced the plan put forward for the NorthMet Mining Project and Land Exchange will result in a productive mining operation that will produce minimal environmental impacts and will advance the technology of mining. It will set a high standard for additional mining proposals that may follow.	NEPA16
3771	The SDEIS represents a plan, however, and execution of the plan will requirevigorous monitoring and enforcement of the project features set forth in thisdocument, and a solid Financial Assurance package that will enable the mining site reclamation to be completed if the project should fail or be abandoned at any point in the process going forward.	FIN16
3772	I also insist that Cultural Impacts be carefully protected in the plans going forward, before the Final Permit to Mine is issued by the Minnesota DNR.	CR05
<b>Sender Name (Submission ID)</b>	Rep. Phyllis Kahn (37929)	
3839	In chapter 3, pages 136 to 138, you list information that includes the preliminary cost estimate of closure. The source cited is "Foth 2013." I've looked at the cited memo in the SDEIS. The Minnesota DNR has simply copied information from PolyMet's hired consultant without confirming or fact checking their work. If the Minnesota DNR and its co-lead agencies are unable to even fact check the work they presented on financial assurance, how are we to expect that you are capable of adequately protecting the citizens of Minnesota?	FIN05, FIN09

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rep. Phyllis Kahn (37929)		
3840	This project should not go forward unless a reputable third party insurer, such as Lloyd's of London, can be found to back the issued bonds. Private insurers have expertise in managing risk that the State of Minnesota can't match. Additionally, policymakers could tap the assurance funds for other purposes. Private insurance is clearly superior to a state managed approach in this case. The simple fact is, if a third party private entity will not take on the financial risk posted by PolyMet, the state shouldn't.	FIN08, FIN09
3841	In the SDEIS you say that financial assurance will be done in the Permit to Mine stage. Looking at the most recent MinnTac Permit to Mine document, there is one short paragraph on financial assurance. This project shouldn't go forward without robust public debate, and the opportunity for legislative hearings, if what we can expect is a paragraph from the DNR in the Permit to Mine phase. You must ensure that the public, including financial experts and those elected to represent the citizens of Minnesota, have a chance to weigh in on financial assurance. It has not been your practice to do so in the past, will it be in this case?	FIN13
<b>Sender Name (Submission ID)</b> Rev. Charles Flynn (57341)		
18428	I would like to have something like PolyMet come in that could possibly reverse that and resuscitate our communities that are dying. ... I looked up the environmental review statement. It seems to be very much in accord with preserving God's creation and making sure that nothing bad happens to it. ... the whole thing seems like it is going to preserve our clean water, preserve our environment and keep everything the way it should be.	SO10
18430	I have no fears that that [environmental degradation] will happen because the long arm of the law is out there.	PER34
<b>Sender Name (Submission ID)</b> Rev. Wendy Jerome (51615)		
13197	Our watersheds are huge porous underground resources that sustain a world-celebrated wilderness. 100% of sulfide mines leak toxic carcinogens and sulfuric acid. The ancient Greek and Roman mines around the Mediterranean are still leaking today.	WR023
13199	We can count on the death of aquatic life and the terrestrial life - including human beings- dependent on it, if sulfide mining is allowed in Minnesota.	HU03
13200	Some think that sulfide mining would bring jobs to MN. On the contrary, it would bring a few hundred part time and full time jobs, that would be intermittent, given world ore prices. The mining would last 20 years. Minnesota would lose a slowly, but steadily growing recreation economy - and wilderness that is a world treasure for the world.	SO01
<b>Sender Name (Submission ID)</b> Rhoda Drake (38447)		
13618	The potential pollution problems and destruction of the environment are my main concerns. The clean water and natural environment should be protected. Please do not permit the Polymet project.	GEN01
<b>Sender Name (Submission ID)</b> Rhonwen Tas (39715)		
14884	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
<b>Sender Name (Submission ID)</b> Rich (38360)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) Rich (38360)</b>		
13662	I'd like to share my support for Polymet and to tell you that they are committed to keeping a clean,safe operation that will employ thousands to begin with and hundreds for a long,long time.	SO10
<b>Sender Name (Submission ID) Rich Libbey (44953)</b>		
8305	Rather than refilling the pit with sulfate laden crushed waste rock ... instead completely enclose the stock pile with a bottom liner and impervious overlay of geomembrane and concrete plus soil overlay	GT04, GT10
8307	The EIS needs to consider the use of fly ash from Minnesota Power's electric power plants which is high in PH and now put in tailings basins to be mixed with the concrete mixture.	ALT08
8310	If the Polymet mine can't develop a plan with zero discharge after closure then leave the ore body in the ground for future generations.	PD01
8312	I question the ground water migration figures and suggest test wells be drilled and pumping from the fracture zones to measure the ground water movements and fracture zones.	WR011, WR012, WR061, WR071, WR078, WR079, WR087, WR099, WR168, WR169
8329	What is the predicted out flow of the mine pit after closure and the water quality with and without refilling it with waste rock?	WR173
8331	How is Polymet going to handle the dirty contaminates that are removed from the water?	PD03
8333	The draft EIS does not consider the total impacts of possible future mines in the Duluth complex that is a certainty if Polymet is approved.	CU04
12689	THE EIS FAILS TO CONSIDER THE USE OF FLY ASH AS A SOLUTION TO POTENTIAL ACID MINE DRAINAGE AND USE AS A MINE CAP CLOSURE ALTERNATIVE AND US AS A NEUTRALIZING AGENT IN THE MINE PIT.	ALT08
17015	I Feel the SDEIS is inadequate because it does not analyze a ZERO discharge upon closure option. The current option of indefinite treatment by Reverse Osmosis is totally unacceptable. The only way this mine can be permitted responsibly is a NO ACTIVE TREATMENT OPTION.	ALT15
17018	THE SDEIS SHOULD ANALYZE THE FEASIBILITY OF TOTALLY ISOLATING THE SULFATE BEARING WASTE FROM AIR AND WATER. IT DOES NOT DO THIS AND IS THEREFOR INADEQUATE.	ALT01, ALT03
17019	THE FINAL EIS NEEDS TO PREDICT THE WATER QUALITY OF THE EAST PIT WHEN FILLED WITH WASTE ROCK AND WHAT IT WOULD BE WITHOUT THE WASTE ROCK BACK FILLED INTO IT.	WR173
17020	THE FINAL EIS NEEDS TO DETERMINE IF THE PIT WILL OVERFLOW IN PERPETUITY AS THE CANISTEO IRON MINE ON THE NORTH SIDE OF BOVEY IS DOING AND COSTING TAX PAYERS MILLIONS OF DOLLARS TO CONTROL EVEN THOUGH THE WATER IS SOME OF THE HIGHEST QUALITY IN THE STATE. IF THE POLYMET MINE OVERFLOWS WITH TOXIC RUNOFF THE PROBLEM WILL BE UN MANAGEABLE.	WR173
17308	Information on using waste fly ash [CCP'S] in mine closures. This should be considered in the Polymet EIS. The EIS is incomplete without considering all alternatives.	ALT08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rich Libbey (44953)		
17400	a reverse osmosis system...is a high maintenance system computer controlled with pumps constantly running and filters to be changed once a week. The Polymet water treatment plant would have to be manned 24 hours a day with at least 4 full time employees... I would suggest at least 500 million guaranteed up front bond tied to the consumer price index. The labor expense alone needs to be calculated. I would estimate at least \$250,000 per year in operator wages.	FIN05
17401	I would also suggest that we pass a law similar to Wisconsin's that requires citing a similar mine that has operated at least 10 years and has showed successful closure for ten years any where in the world before applying for a permit to mine.	PER25
<b>Sender Name (Submission ID)</b> Rich Sill (43686)		
15455	I feel strongly that if we, as Americans, are going to continue to demand gold, copper, platinum, paladium, etc we need to be responsible for mining those minerals here and be willing to take ownership of the problems associated with that mining. It seemed unethical to throw our demand on other counties, many of which do not have adequate environmental or labor laws to protect either their land or their people.	NEPA05
15458	After reviewing the SDEIS I am becoming increasingly concerned about the mines effect on wild rice. The latest report shows the 10 parts per million limit as probably a sensible amount of sulfite in the water. I am seriously concerned that their will be an aggressive action by certain parties to increase that greatly (in some reported cases to as much as thousands of parts).	WR160
15459	Wild rice is a sacred grain to the Ojibway people of this area and is protected by treaty. If the permit is granted I would strongly feel very strong ongoing monitoring be required. Wild rice is a valuable resource in itself and should not be sacrificed in order to extract other resources such as copper.	CR01
15460	I am deeply troubled by what I am currently hearing regarding the fact that nearly all the copper is scheduled for transport to China. I supported the mine originally because I believed we would be using these minerals primarily for domestic use.	PD25
<b>Sender Name (Submission ID)</b> Rich Staffon (11626)		
7397	What will happen to the ownership of the land at the mine site? When the site has been reclaimed and rehabilitated, after mining is completed, would it be possible for the land to be returned to public ownership as part of the reclamation process? It would be great if a commitment could be made to return our public land after the project is completed	PD24
7397	What will happen to the ownership of the land at the mine site? When the site has been reclaimed and rehabilitated, after mining is completed, would it be possible for the land to be returned to public ownership as part of the reclamation process? It would be great if a commitment could be made to return our public land after the project is completed	PD24
<b>Sender Name (Submission ID)</b> Richard & Carol Colburn (42764)		
14522	What environmental and economic preparations will be created to effectively monitor the mine site while in operation and after it closes in thirty years? What sort of escrow account can be required to insure there will be funding for environmental monitoring and necessary remediation of the site? What assurances will there be that the citizens of the region and Minnesota will not be left with both an environmental and economic disaster? Further, what preparations will be required to insure that Poly Met will be able to respond to an emergency situation now and in the future?	FIN01, FIN10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Richard & Carol Colburn (42764)		
14523	Equally important is provision of the funding necessary to effectively monitor the operations of the mine. We assume that it will be the responsibility of the Department of Natural Resources to monitor the mine. It makes little sense to develop stringent environmental and economic requirements but to inadequately fund the oversight of these requirements.	FIN01
14524	We have been told that the non-ferrous metal deposits in northern Minnesota are very large and will eventually be developed. If that is the case it is incumbent on the Department of Natural Resources and the state of Minnesota to insure that it will be done in such a way that the long-term environmental health of the region be protected.	CU02, PD30
<b>Sender Name (Submission ID)</b> Richard & Justine Kingham (40204)		
6642	Minnesota is too fragile yet important a natural resource to threaten with this [mine]	PD01
<b>Sender Name (Submission ID)</b> Richard and Katherine Collman (636)		
419	What price wilderness? What price our nation's great parks? What price pollution in our lovely northern waters? What price put on the short term vision for copper and nickel for world computers only to ruin some waters and woods in the next 100-500 years? We can put a price on short terms needs and suffer in the generations to come.	SO01
<b>Sender Name (Submission ID)</b> richard anderson (41170)		
9205	I strongly believe that preserving our natural resources, including uncontaminated water, is more important than temporary financial gain.	WR195
<b>Sender Name (Submission ID)</b> Richard Brainerd (16171)		
11232	I believe the planmine should not be built as proposed is a bad deal and puts Minnesota waters and taxpayers at risk.	SO02
<b>Sender Name (Submission ID)</b> Richard C Staffon (11625)		
2307	[mining proposal will:] Increase mercury and sulfate pollution in the St. Louis River watershed which is already impaired for these pollutants. This has serious implications for human health and wild rice.	HU03, WR158
2307	[mining proposal will:] Increase mercury and sulfate pollution in the St. Louis River watershed which is already impaired for these pollutants. This has serious implications for human health and wild rice.	HU03, WR158
7398	[This mine will] destroy at least 3 square miles of high quality fish and wildlife habitat, including forests, wetlands, and streams. ... A much larger area of habitat may be left degraded...A responsible mining plan would not result in the destruction of thousands of acres or our land, water and vegetation.	VEG03, WI02
7398	[This mine will] destroy at least 3 square miles of high quality fish and wildlife habitat, including forests, wetlands, and streams. ... A much larger area of habitat may be left degraded...A responsible mining plan would not result in the destruction of thousands of acres or our land, water and vegetation.	VEG03, WI02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Richard C Staffon (11625)	
7400	[This mine will] leave a legacy of polluted soil and water in the St Louis River watershed that will need to be treated at great cost for possibly hundreds of years...A responsible mining plan would not require massive financial assurance, perpetual maintenance or leave toxic pollutants stored in ponds or basins that are subject to chronic leakage and eventual failure.	WR037, WR130
7400	[This mine will] leave a legacy of polluted soil and water in the St Louis River watershed that will need to be treated at great cost for possibly hundreds of years...A responsible mining plan would not require massive financial assurance, perpetual maintenance or leave toxic pollutants stored in ponds or basins that are subject to chronic leakage and eventual failure.	WR037, WR130
7401	Millions of dollars have already been spent to clean up the legacy of industrial pollution that was left in the lower St Louis River years ago. Much progress has been made, yet much work is left to be done to clean up this mess. Have we learned so little, that now we are willing to create the same problem in the upper reaches of this watershed?	WR111
7401	Millions of dollars have already been spent to clean up the legacy of industrial pollution that was left in the lower St Louis River years ago. Much progress has been made, yet much work is left to be done to clean up this mess. Have we learned so little, that now we are willing to create the same problem in the upper reaches of this watershed?	WR111
7402	I am opposed to an irresponsible mining project that ... creates an enforcement nightmare for our public agencies. These agencies are unlikely to have the ability to monitor and require the mining companies to actually do what they have promised.	PER06
7402	I am opposed to an irresponsible mining project that ... creates an enforcement nightmare for our public agencies. These agencies are unlikely to have the ability to monitor and require the mining companies to actually do what they have promised.	PER06
7403	When a mining company shows up that has the will, the technology and the financial strength to mine these minerals in an environmentally sustainable manner, only then should we consider giving someone a permit to mine in the water rich environment.	PER35
7403	When a mining company shows up that has the will, the technology and the financial strength to mine these minerals in an environmentally sustainable manner, only then should we consider giving someone a permit to mine in the water rich environment.	PER35
7404	A responsible mining plan would leave a site that is stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact natural resources and is maintenance free upon closure (MN Rules 6132.3200)	PD02
7404	A responsible mining plan would leave a site that is stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact natural resources and is maintenance free upon closure (MN Rules 6132.3200)	PD02
7405	The PolyMet SDEIS... defines a level of impacts that far exceeds what one could consider to be a responsible mining project. And on that basis, it should be denied.	PER35
7405	The PolyMet SDEIS... defines a level of impacts that far exceeds what one could consider to be a responsible mining project. And on that basis, it should be denied.	PER35
<b>Sender Name (Submission ID)</b>	richard carothers (10)	
296	This project is not worth the cost of our sacred forest and waters.	SO01
297	The jobs are not there now so what's the difference [if the mine is there].	SO06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Richard Cooter (54659)		
17926	Sulfide mining has a terrible history of water and air pollution and adverse health effects.	PER23
17927	Experimenting with new mine technology at the height of one of the world’s great watersheds seems like a really bad idea.	WR128
17928	The claim is 30 years or so of jobs and 200 and 500 years of abatement and water monitoring. Will people 200 years from now thank us? Will they say “Those people helped to make our lives so much better by mining here”? I doubt it.	SO01
17930	Considering the nature of the jobs it seems clear the main beneficiaries of the project will be the shareholders and not the public.	SO06
17931	The proposed fund for the 200 and 500 years of monitoring is really some kind of fantasy. Can the legislature be depended on to be acting in the public interest? Surely lawyers for the company won’t be. Will some future legislature or governor find a way to raid the fund for their own purposes? Think of the tobacco fund.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Richard Daly (16240)		
10313	MN has the capability and resources to move ahead with this very important economic development project using available advance technology and techniques that provide adequate safe guards to the environment!	SO10
<b>Sender Name (Submission ID)</b> Richard Decoster (14900)		
13804	We live on the western end of the Mesabi Range and have been living with and still are, the remains of what the mining companies left, a mess for us all.	FIN10
13805	We want pure water for now and for the future and our clean environment left intact.	WR195
<b>Sender Name (Submission ID)</b> Richard Flesvig (18067)		
3180	By express admission in the SDEIS significant water pollution will last for 200, 500 or longer in terms of years; and will require perpetual water treatment. Not all of the polluted water will be treated.	WR035, WR115
3181	The 90 percent capture rate of polluted water bears no scientific proof or substantiation. So the SDEIS must be rejected.	WR018
3182	...And the state's paramount concern for the protection of it's air, water, land, and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct."No such conduct is provided – no such alternative is provided in the SDEIS.	ALT13
3183	The SDEIS indicates that the details of the financial assurances required to sustain a 200- or 500-year period will not be disclosed until the permitting process commences. This is unfortunate as I seriously question how anyone can properly calculate the staggering dollar amount let alone provide a financial assurance for this long term of a period.	FIN01, FIN05, FIN13
17475	PolyMet "thinks" its actions will contain 90%+ of the runoff from the mine tailings. There is no science that confirms this prediction. If we assume that 90% of the highly toxic runoff is contained and "treated" through a highly questionable reverse-osmosis method, the 10% that is non-treated and leftover is significant to our environment. By acknowledgement in the SDEIS (see pages 3.5 of section 3.1.1.7 in the SDEIS), the term of treatment may be 200 to 500 years or longer.	WR018, WR035, WR108

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Richard Flesvig (18067)		
17556	The environmental and human relations performance of this parent company is horrible. To think either PolyMet or Glencore will be a viable company beyond the twenty-year life of the mining operation, let alone throughout the long period of clean up and remediation, is highly questionable. Please review the annual report of PolyMet and you will be very concerned about its viability and experience.	FIN01
17557	There are no reasonable examples of environmentally safe sulfide mining in the world. None. There are no reasonable examples of environmentally safe water treatment using reverse osmosis technology on a large scale in the world. None. Why would we let PolyMet experiment at this location? It is one of the most important watersheds in the Northern Hemisphere.	PD03, PD23
17558	Economic considerations should not be the primary determinant in the decision making regarding the SDEIS. How can twenty years of mining jobs be traded for decades and perhaps hundreds of years or more of environmental contamination and the destruction of our precious water resources?	SO01
<b>Sender Name (Submission ID)</b> Richard Fuller (7673)		
51	It doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells	HU01, WR041
52	It doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	ALT13
53	It doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	AQ28
814	PolyMet SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity."	WR037
1827	The PolyMet mine and the exchange of public lands to allow an open-pit sulfide mine and mine wastes on Superior National Forest lands are inconsistent with federal law, public interest and fiduciary responsibilities to tribes.	CR01
1828	The Land Exchange serves only the private interest of a foreign corporation, not the public interest. The Land Exchange won't unify ownership of federal lands. Nearly all of the lands in the exchange have split mineral rights and no legal barrier to surface mining.	LAN04
1829	The SDEIS does not assess the costs of replacing natural resources values lost when mature forests and pre-settlement wooded wetlands are destroyed. Despite the scandalous history of sweetheart appraisals that favor private interests, taxpayers have seen no appraisal information to show that the PolyMet Land Exchange would meet legal requirements for a fair trade.	LAN03
1830	The SDEIS' analysis of harm to resources that are important for tribes relies on implausible assumptions. The SDEIS underestimates the hundreds of years of water pollution from the PolyMet sulfide mine and assumes away impacts on the St. Louis River and tribal resources.	CR01, WR115, WR189
1832	Whether in discussing the PolyMet sulfide mine or the proposed exchange of lands ceded to the federal government by the tribes, the SDEIS disregards the federal government's fiduciary responsibility to protect tribal rights to hunt, fish and gather plants, including wild rice.	CR01
<b>Sender Name (Submission ID)</b> Richard H Hudelson (54892)		
18827	I attempted to read the summary part of the SDEIS and found it difficult.	NEPA07
18828	I am worried about the great uncertainties regarding this project. Cost estimates, time period, reliability of technology, and unusual weather events all open room for bad outcomes. The risks seem too great.	PD01, PD22

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Richard Harris (54643)		
18008	IS the financial assurance of [a shell company, PolyMet] solid?	FIN01
18010	Have the models taken into account the torrential rains that St. Louis County had two years ago?	WR077
18011	Is there any chance that some of the copper can be designated to green energy companies that would be set up in the iron range, creating jobs there?	SO04
<b>Sender Name (Submission ID)</b> Richard Henke (7161)		
494	There is no question that this area is in need of the jobs this mine will create and support in the surrounding communities.	SO10
<b>Sender Name (Submission ID)</b> Richard K Newkomet (57207)		
17116	This mining is going to pollute the land and waters so my grandkids will not enjoy what I have.	WR107
17119	Only thing this is going to benefit is the politician's pocket books... And when they are done making their millions of dollars they will pull out and leave the taxpayers to clean their mess up.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Richard Lee Hallfrisch (54570)		
18228	Money is the only motive for them to be allowed to destroy parts of our north country for years to come.	SO02
<b>Sender Name (Submission ID)</b> Richard Mammel (4869)		
1920	It seems to many of us that as Minnesotans voted for the Water Legacy Act only about five years ago that having this PolyMet issue pop up is a total contradiction as well as violation of policy, good sense, and ethics as well.	PER35
<b>Sender Name (Submission ID)</b> Richard Martin (42940)		
11984	I have deep concerns about the mining project's potential impact on Minnesota's natural resources, water quality, loss of wetlands and harm to wildlife.	WET24, WI01
14507	My concerns are the proposed mining in the area will be a threat to the Minnesota wetlands, rivers, lakes and streams, including Lake Superior and the Boundary Waters.	WET24, WR024, WR081, WR111
14508	Even if just one of the potential negative events happens the impact will take decades, or even generations for the area to recover from the mining disaster.	PD01
<b>Sender Name (Submission ID)</b> Richard McGehee (3617)		
664	do not allow the pollution inevitably produced by these dirty mines.	GEN01
<b>Sender Name (Submission ID)</b> Richard Morrison (44360)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Richard Morrison (44360)		
10368	Provide time to plan and execute, before operations begin, water flowage tests within and out of the 100 Mile swamp. These would presumably include both water volume flow rates at appropriate times and also potential contaminant migration rates.	WR080, WR175
10370	Provide for a secure funding source in the event that remediation is found to be necessary at some future time.	FIN01
10371	Allow time to review and correct the misleading statements about drainage from the 100 mile swamp. It is clear from expert geological review that the swamp drains in part via Langley Creek into the BWCA. This is a fact which Polymet has omitted from its plan.	WR024, WR080, WR081, WR111, WR175
<b>Sender Name (Submission ID)</b> Richard Morse (44542)		
11762	Not enough emphasis has been given to the fact that this mine is not only putting the jobs of the tourism area at risk, but many, many people like me would not relocate here if the environment is spoiled.	SO02
<b>Sender Name (Submission ID)</b> Richard Pierce (32893)		
13828	With the midwest poisoning their water supplies with herbicides, pesticides and other chemicals. Other states having water supplies contaminated from fracking or having water supplis rationed due to drought and climate change... plus human population of earth nearig 8 billion, it is no longer prudent to endanger our GREAT LAKES with further pollution.	WR111
<b>Sender Name (Submission ID)</b> Richard R Lund (57264)		
17404	Would it be economically more feasible to subsidize mine workers (unemployed) than to pay for environmental cleanup for 100 years?	SO01
<b>Sender Name (Submission ID)</b> Richard Staffon (18347)		
2529	It [proposed action] will destroy at least three square miles of high-quality sufficient wildlife habitat, including forests, wetlands and streams.	WI02
2530	This project will increase mercury and water pollution in the St. Louis River Watershed, which is already impaired by these pollutants. This has serious implications for human health, especially fetal development (phonetic) in northeastern Minnesota, for people who eat fish, and it will also impact wild rice.	HU03, WR158
2531	it will leave a legacy of polluting the soil and water in the St. Louis River Watershed that will need to be treated at great costs for possibly hundreds of years.	FIN08
<b>Sender Name (Submission ID)</b> Richard W. Swanson (47025)		
10925	We simply cannot afford to risk our environment for “progress and jobs.” Those two elements cannot be allowed to drive everything and outweigh serious concerns about environmental and health dangers. If there is any doubt, the doubts must be resolved in favor of the environment and health.	SO02
10927	There certainly have been doubts raised in the EIS and subsequent comments. Please do not sweep those doubts aside in favor of economic gain or the technical “needs” of our modern lifestyle.	NEPA05
<b>Sender Name (Submission ID)</b> Richard Watson (3687)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Richard Watson (3687)		
9647	We are just beginning to understand how badly we have fragmented the forest here [through mining]...	VEG03
9648	We are just beginning to understand ... how impaired our waters are already [from mining]....	WR109
9651	Our efforts should be put to cleaning up what we have already mucked up and not trying to determine just how much more pollution we can tolerate.	NEPA15
9652	The myth of "strong regulations" in Minnesota must be scientifically evaluated, mining company variances denied, and corporate polluters held totally accountable before we embark on further pollution of this region.	PER06
9655	I strongly suggest we need to hold off on sulfide ore mining in this region until we have a much better plan in place than offered by Polymet.	PD01
12089	Real life understanding of the effect of the proposed mine on the BWCA requires determining the split of waste drainage in the swamp that goes to the St. Louis River and BWCA watersheds by hydraulic conductivity testing which has not been done.	WR024, WR071, WR080, WR081, WR111, WR167, WR175
12090	Ongoing protection of the BWCA requires periodic water testing for mine waste at Langley Creek and the Dunka River which is not provided for in the uncorrected SDEIS.	WR024, WR071, WR080, WR081, WR111, WR175
13053	SDEIS requires clarification as it is incomplete....The chemical and physical characteristics of the low grade ore crushing and grinding should be tested and defined for appropriate and specific design of the emission control system for the low grade sulfide ore crushing and grinding operations and not rely on taconite plant designs....	NEPA09
13055	SDEIS must include a consideration of all sources of Ultra Fine Particles' (UFP), quantities of UFP's generated by each source, and a method for controlling such particles to eliminate human exposure to UFPs....Ultra Fine Particles are toxic due to their size and not necessarily their chemical makeup. Nano Particles or Ultra Fine Particles which may be present in crushing and grinding operations are definitely produced when high explosives are used to blast rock and are present in diesel exhaust. Testing for UFP's at all physical handling stages, blasting, crushing, grinding, and transport should be standard. And, elimination or control of UFPs, a known health hazard, must be accomplished.	HU01
13058	The SDEIS modeling of what happens in the tailings basin is incomplete and misleading. in studying the Beneficiation Process, we discover that there is a list of chemicals that are listed as "Consumed." This list amounts to a total of 29,738.5 tpy (tons per year) of additional chemicals, of varying degrees of toxicity, that will be added to the tailings basin according to a reply I received from the DNR....This is problematic in itself, a large quantity of varying degrees of chemical toxicity that have essentially been unaccounted for and is not included in modeling and could have a significant impact on chemical interaction in the tailings basins.	HAZ03, WR025, WR057
<b>Sender Name (Submission ID)</b> richardbradford@mchsi.com (6686)		
1204	We need what Polymet will mine and this mining can not be done more safely in any other part of the world	ALT16
1291	I believe that the review process is as complete as it can possibly be.	NEPA16
<b>Sender Name (Submission ID)</b> Rick (39533)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rick (39533)		
6271	Section 5.2.2.3.1 of the EIS. Common sense tells you that the aquifer in the area and in the pit will be affected by such an operation. There is no way the current compaction levels can be redone to seal off any contaminants from entering the aquifer.	WR005, WR088, WR171
6273	500 years plus [of water pollution and treatment] is a long time with prohibitive costs that will be a burdon on future taxpayers.	FIN10, WR115
6277	To allow [the backfilling of the East Pit after year 11] would lead to a direct injection of sulfides and heavy metals into the aquifer.	WR088, WR171, WR173
13569	The plan calls for pumping water back in it including "treated water" from the WWTF. The word limit is in the EIS. Limit to me means not quite as much. There should be no oxidation of the sulfide minerals.	PD03
<b>Sender Name (Submission ID)</b> Rick Brandenburg (54658)		
17936	The 900 acres of wetlands this project would destroy and the thousands of additional acres that would be degraded by pollution, drawdown and drainage include a mosaic of many different communities with an incredible range of biodiversity that could never be replaced by proposed mitigations measures.Replacement wetlands just don't work. There is insufficient analysis of the loss of ecosystem functions that would result if the permit is issued. This wetland loss is unacceptable.	WET05
17938	The decision the USACE must make as to whether to allow Poly Met to go ahead with its plans, pits the permanent chemical, physical, and biological destruction of all these special places, at the headwaters of a thegreatest river on the US side that flows into Lake Superior, against the worth of not very many jobs that will last for maybe 20 years. The Poly Met Section404 Permit should be denied.	SO01
17941	The [Land] exchange would be senseless from the Forest's point of view, since it would not enhance forest biodiversity and other values, and it would not benefit the public who use the Superior National Forest and want to see it protected.	LAN01
17942	The tremendous volume of this waste rock, as well as distrubed peat, mine pits, and tailings that the minue would generate is stupendous, and mercury is giong to be seeping away from all of it.	MERC20, MERC21
17943	The SDEIS looks at the impacts of mercury deposition on area lakes--why not streams and rivers? The predicted mercury loads to the Partridge River from the Embarrass River is underestimated because of this oversight.	MERC08, WR044, WR045
17946	If PolyMet is allowed to carry out its plans, sulfates, lead, copper and probably other pollutants are going to be poisoning the St. Louis River, its estuary, and Lake Superior for hundreds of years, because perpetual treatment is never going to happen.	FIN01
17947	The jobs touted by the mining companies will come at the expense of natural resource and tourism occupations that depend on pristing northwoods.	SO01
<b>Sender Name (Submission ID)</b> Rick Cannata (18203)		
13436	We need the jobs in Northern Minnesota, not just the construction jobs and the mining jobs, but it's all here, the manufacturing, all the spinoff jobs	SO10
<b>Sender Name (Submission ID)</b> Rick Olson (44693)		
7210	The risk to water quality, wild rice, fish, birds, other wildlife, and other segments of the environment are too high to permit sulfite mining in northern Minnesota.	VEG04, WI01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rick Olson (44693)		
7212	How is the DNR assured PolyMet will be able to pay for environmental cleanup years after the jobs are gone and the environment is severely damaged?	FIN01
7214	What is the economic impact on the region?... Jobs would be created by mining; however the potential to loose jobs in the area is a factor...Tourism and recreation jobs may be lost.	SO04
7220	Potential benefits of sulfide mining is not worth the potential to severely damage a watershed that connects to the largest fresh water lake in North America.	WR115, WR195
<b>Sender Name (Submission ID)</b> Rick Putnam (39076)		
10227	I do not think it is in the best interest for the citizens of Minnesota to be responsible for future tax burden as a result of cleanup costs for pollution that will result from poly met's project. ... The reason I am so concerned...in spite of poly met saying that they would be responsible, is that the financial assurances need to remain in place for an extreme amount of time.	FIN01
10230	I understand that the financial assurance part of this project is actually looked at in the permitting stage, but I strongly feel it is important that it is addressed here as well.	FIN13
10232	The land swap between the forest service and poly met in my mind needs to have its own separate review.	NEPA13
10242	Plan to account for the destruction of moose habitat as well as other natural habitat for the Canadian lynx	WI02
10243	Plan should call for a detailed plan for financial assurances that protect current and future taxpayers	FIN10
10244	Plan should accurately assess health risks to the public	HU01
10245	Address the risks of mercury pollution for our children as well as future generations	MERC03
10246	Plan should improve wetland protection and replacements	WET04
10249	Provide Minnesotans with accurate information about how long polluted waters will require treatment	WR036
10250	Glencore must be recognized as a responsible party for permitting because of its ties with PolyMet	PER02
10253	Our fresh water is our most important and valuable resource.	WR195
16671	I feel it is a mistake for us to make this trade which would allow non ferrous mining to be done in our national Forest without a longer period of time for public comment and education on this important change of use. It just does not make logical sense, unless a for profit corporation's project does not need to have the same scrutiny as an individual.	NEPA07
16672	There is some discrepancy as to the amount of water being released from the project. I would believe the tolerances were put into the model for a good reason therefore it would make sense that the correct numbers be put in and the model be rerun. This is an important part of the EIS. In order to protect our citizens it is only responsible to redo the calculations and do a revision of the model.	WR086, WR093, WR105, WR178, WR183, WR189

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rick Putnam (39076)		
16674	[I am] very troubled by the potential harm this type of mining could bring to northern Minnesota. I believe this harm will not only come to the earth but also would be damaging to the already established tourism environment of that area. This includes businesses as well as cabin owners. The related jobs, as well as construction jobs, taxes and other benefits this tourism economy and vacation home industry brings to the state is sustainable and can be grown. I do not believe that the current tourism economy and vacation home industry could flourish side by side with the nonferrous mining economy which brings pollution and greater industrialization to this unique part of our country.	SO02
<b>Sender Name (Submission ID)</b> Rick Skoog (57347)		
18397	I guess my main point is I really find it hard to believe that a for-profit company, who is a foreign corporation, is going to put up the money, and they fully admit that it is probably going to be for 200 years' worth of water treatment. I really find it hard to believe that a for-profit corporation is going to put up that amount of money and guaranty that amount of money. And I find it hard to believe that that amount of money can be put in a safe place, without some politician stealing from this, "We have got a big fund here and it is just sitting here and it is not doing anything, so we better borrow from that fund."	FIN01, FIN08
18398	no compelling reason to have 20 years' worth of mining that is going to end up producing 200 years' of pollution.	SO01
18401	They are not treating the problem [with water treatment]. They are just treating the runoff from the water.	WR195
18743	One big bad idea is for the Federal government to trade land for this deal. Over 1000 acres of wetland will be lost forever. They are not trading wetland. It is federal land not Minnesota land or Hoyt Lakes land, but this does not protect or enhance the federal position it only puts the federal tax payer on the hook with the toxic chemicals leach from the tailings pond.	LAN01
<b>Sender Name (Submission ID)</b> Rita Ann Youngs (9591)		
220	There is nothing more important than our most precious resource, clean water. We cannot leave future generations of Minnesotans strapped with polluted water.	WR195
1132	We need to do more recycling and reusing materials versus digging into this precious land.	ALT16
<b>Sender Name (Submission ID)</b> Rita Bauer (39325)		
12783	We need to seriously consider the impact on wildlife and the environment as well as humans. I do not feel this is too much to ask. It is the minimum !	WI01
<b>Sender Name (Submission ID)</b> Rita Jarrard (20706)		
16104	The proposal by Polymet to trade acreage in the Superior National Forest for other land in northeastern MN sounds unlawful and dangerous... These other lands include those "protected" by treaties with Ojibwe Indians. How many more times will people of power vote to disrespect our early Americans?	LAN05
16105	Pollution from such mines would destroy the land for hunting, fishing and growing of crops by the Ojibwe, and create untold health hazards for ALL future generations of Americans.	HU03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rita Kovtun (43220)		
14215	When weighing the pros and cons of the project, it seems logical to discontinue the project as the number of years of profit are only a fraction of the number of years of treatment and rehabilitation of water and land.	SO01
<b>Sender Name (Submission ID)</b> Rita OConnell (47774)		
8202	Providing water quality treatment for 200 to 500 years (or more) is incomprehensible...can we really, in good conscience, even consider permitting a mining action whose wastewater discharges do not meet water quality standards without mechanical treatment at the time of or shortly after closure? Is it legal to permit a facility with such a long-term timeline?	PER04
8205	If the company is still in existence in 200-500 years, its own estimate of postclosure costs...is \$700 million to \$1.2 billion. Will the company's profits from 20 years of mining be sufficient to pay for that?...Or will they prepay those entire cost in an upfront manner	FIN01
8210	Reverse Osmosis...produces a concentrated waste product that must be removed to "appropriate off-site facilities" (page 3-72)...I'm concerned that these wastes are truly "treated appropriately" so they don't move the contamination problem to another location.	WR145
8219	I'm concerned, however about whether groundwater will move into fractures in the bedrock...I didn't find a description of what bedrock was present at the stockpile location, and then reading on page 4-46 that the upper 200-300 feet of the Duluth Complex is more fractured & jointed than lower portions. If the stockpile is located on that or other fractured bedrock, building a hydraulic barrier down to bedrock may still allow significant contaminated groundwater movement away from the site.	WR011, WR017
8228	Fig 3.2.10 shows the 20-year pit extending only into a small portion of Unit 1... [and] that Unit 1 is exposed at the land surface at the mine site, but is not part of the 20-year projected mine pit. It's hard to believe that the company won't expand further into that ore body.	PD30
11177	Do you really think the company will be around or responsible for that long? Will the state of Minnesota be around in 500 years? Look back at what was happening 200 years ago (1814) or 500 years ago (1514), and could people in those times accurately predict what would happen today? No, and no more can we predict our distant future.	PD24
11189	Another project is already well into their planning process - Twin Metals is proposing to mine at the Birch Lake, Maturi, and Spruce Road locations, the latter 2 of which are quite close to the BWCA.	CU02
<b>Sender Name (Submission ID)</b> River Gordon (16874)		
13933	I understand the short-term economic benefits of a project like this, but the risks to our abundant and beloved natural resources are just too great.	SO01
<b>Sender Name (Submission ID)</b> River Point Resort & Outfitting Co. (39586)		
6305	There is no comprehensive analysis in this SDEIS that incorporates short-term, moderate-term, long-term and very long-term (hundreds of years) estimates of costs and benefits.	FIN05
6306	there are no reasons given why other alternatives that could reduce pollution and impacts on wetlands were not analyzed.	ALT13

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	River Point Resort & Outfitting Co. (39586)	
6308	everywhere on the Earth where this type of mining has occurred, heavy metal pollution and acid mine drainage is a result. Nowhere in the SDEIS was there any acknowledgement of this fact. Nor was there any data substantiating that the proposed PolyMet Mining Corporation's North Met mining project would be unique in preventing what history tells us happens at each and every sulfide mine site, and will occur at the PolyMet. How will this venture in Minnesota's water rich environment be done in such a unique manner, as to guarantee no pollution to our waters?	PD26, WR023
6332	The SDEIS does not address why, with modern technology and knowledge, these [Dunka Mine and LTV Tailings Basin] continue to have AMD runoff into our watersheds, threatening the health of our birds, our wildlife, our wells, and ultimately our human health. Failure to raise this issue of past history of AMD drainage in the SDEIS raises serious questions about the commitment of PolyMet, the MPCA, and other responsible agencies for protecting our environment and health both during and after mining operations.	PER06, PER18, WR023, WR029
6334	It is more important to have our natural resources protected for the good of the public now, and for the generations to come than to allow this flawed and inadequate PolyMet sulfide mine proposal to proceed to permitting. A mine cannot be permitted if it causes destruction of our natural resources. We Minnesotans have the right to protections of these natural resources.	PER35
6895	How does the USFS think the destruction of 1000+ acres of prime wetlands and thousands of acres of Superior National Forest through sulfide metal mining will serve the Public Interest? (...) The proposed land exchange goes against the Weeks Act and does NOT serve the Public Interest.	LAN01, LAN02
6899	1.Wetlands cannot be created. How will the USFS loss of the 1000+ acres wetlands and the loss of the "one hundred mile swamp" for the creation of the proposed sulfide metal mine of PolyMet be made up?2.How will the loss of wetlands and the loss of the 100 mile swamp affect and impact the water resources surrounding the proposed mine?3.How will the loss of wetlands and the loss of the 100 mile swamp affect sensitive and endangered or threatened species such as the wolf, moose, and lynx and their critical habitat, including noise and the destruction of winter denning or shelter?	WET14, WET19, WI01, WI02, WI05, WR112
6903	4.How will the loss of open space be made up? 5.How will the loss of forests be reconciled?	VEG03
6906	6.How can the USFS ignore the cumulative effects of mineral exploration?7.How can the USFS ignore the cumulative impacts regarding loss of and damage to wetlands?	CU02
6911	8.How can the USFS ignore the potential for environmental damage due to espouse of sulfide ores to air and water, and the potential leaching of toxic heavy metals into the environment?9.How can the USFS ignore contamination from the drilling process itself, including air quality degradation during drilling operations and potential for leakage of gas or oil from equipment and chemicals used in the process, and the auditory pollution from the noise of drilling and heavy machinery?	AIR10
6912	10.How can the USFS ignore the effects regarding water usage and water contamination as related to mineral exploration?	WR203
6914	11.How can the USFS ignore the lack of funding to monitor the extent of exploratory drilling and the necessary future monitoring of the sites for acid mine drainage (AMD)?12.How can the USFS ignore the acid mine drainage (AMD) that is occurring at the former INCO exploration site on Spruce Road, some 36 years after exploration was completed?13.How can the USFS ignore the perpetual nature of acid mine drainage and its very controversial aspects?	WR001, WR023, WR203
6915	16.How can the USFS ignore the degradation of US public lands by foreign companies?	NEPA02
6916	17.How can the USFS ignore the potential impact of mining on the present tourism and recreation industries, and forestry and fisheries as related to federal lands?	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
	<b>Sender Name (Submission ID)</b> River Point Resort & Outfitting Co. (39586)	
8766	PolyMet’s SDEIS has a flawed water flow model. And, now...it is apparent that the SDEIS also has another flaw – water seepage.	WR017, WR019, WR189
8769	the seepage collection system at Minntac had an approximate return rate of only 50 percent...50 percent is sure a lot less than the 99.38 per cent claimed in PolyMet’s SDEIS. Inaccurate, flawed information. And, from those hundreds of operating systems lauded by the SDEIS, only one could be found. Amazing.	PD03, WR020, WR023
10041	The SDEIS maps draw a much smaller swamp downhill from the mine compared to existing government maps. According to US Government maps, the One Hundred Mile Swamp downhill from the mine is 10.4 miles long and drains to both the Saint Louis and Rainy Lake (BWCA) watersheds but SDEIS maps show a shorter 5.5 mile long swamp that is missing the portion of the swamp that drains to the BWCA. Omitting the portion of the swamp that drains to the BWCA supports PolyMet’s conclusion that seepage of mine waste water to the BWCA watershed will not occur.	WR024, WR080, WR081, WR111, WR167, WR175
12067	The projected seepage from PolyMet’s tailings basin and the Mine Site Category 1 waste rock stockpile has been grossly underestimated.	WR017, WR018, WR060
12069	PolyMet does not propose to line the Tailings Basin, nor is the existing LTVSMC Tailings Basin Lines.” (SDEIS, p.5-161) ...a proposed tailings basin of approximately 2,900 acres in size, or four-and-a-half square miles, would be situated, unlined, on top of an existing, leaking, unstable tailings basin, also unlined, screams BIG TROUBLE.	PD07, PD10, WR105
12072	The SDEIS assumption of nearly perfect seepage collection is the critical foundation upon which all claims that PolyMet might comply with water quality standards downstream of the tailings piles rely. This assumption is unreasonable, unfounded, inconsistent with site conditions and inconsistent with the Modeling Work Plan methodology adopted by PolyMet.	WR018
12079	the only example the lead agencies had (of field experience with tailing seepage pump-back) was a study to estimate possible seepage collection at the Minntac tailings basin. And records obtained from the U.S. Army Corp of Engineers through a Freedom of Information Act Request indicate that the seepage collection system at Minntac had an approximate return rate of only 50 percent.” 50 percent is sure a lot less than the 99.38 per cent claimed in PolyMet’s SDEIS.	WR020
14601	Will the proposed benefits of the projected mining operations significantly outweigh the risks and harms to the environment, to population health and the economy?	SO01
14602	Environmental groups say the regulatory history of the Dunka Pit is an example of lax enforcement policy at the MPCA.	PER06
14603	There are reasonable foreseeable problems that may arise in this project that would adversely impact waste water treatment and tailings management which are not reviewed. ...Broken pipes, human error causing accidents, equipment malfunction, and severe weather related disasters.	WR021, WR127, WR128, WR144, WR202
14604	The SDEIS provides no factual assurance or details (only vague references and the need for “adaptive management techniques”) on the impacts to water quality, wildlife or human health if the treatment system fails or if there is a breakdown, which is inevitable. To be told by the agencies, and specifically by Jess Richards, “that emergency planning also will be included in the mine’s permitting” is irresponsible and inadequate, as there will be no opportunity for public comments at that step in the process.	PD01
14605	There is no Financial Assurance plan provided. This is an integral part of the EIS proposal; yet, lead agencies do not currently require it until after the EIS is approved. No public comment period for the public to weigh in on this crucial piece of the PolyMet NorthMet Sulfide Mine Proposal.	FIN13

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
	<b>Sender Name (Submission ID)</b> River Point Resort & Outfitting Co. (39586)	
14606	Why are the same valid reasons to involve the public with comments related to the EIS not also critical to the public’s involvement and comments for the ‘permit to mine’ process? This is illogical and raises the red flag as to the validity, fairness, transparency, and credibility of the entire decision- making process.	PER01
14607	The SDEIS provides no credible information about the cost of monitoring, maintaining, and replacing equipment needed to treat polluted water for 500 years or more. No details are revealed about the nature of guarantees of a financial assurance scheme that would remain viable for 500 years or more....	FIN01, FIN05, FIN11
14752	[The SDEIS] water flow modeling was flawed. Definitely a big problem when the Minnesota Department of Natural Resources seriously underestimated the amount of water available to transport pollutants. Perhaps a show-stopping problem; the DNR is not talking. The Tribes have been saying for years that water flow numbers were wrong.	WR003, WR091
14753	The co-lead agencies have not only made incorrect assumptions for base water flow, they have made incorrect assumptions for seepage of contaminated water (uncaptured and untreated). Simply put, they do not know how much surface and groundwater flows through the area; how fast, far, and where it flows; or how much contaminated water is escaping.	WR003, WR019
14754	[The SDEIS claims] that 99.38 percent of total seepage from the tailings piles will be collected and treated...However, the implicit assumption that total groundwater seepage at the tailings site would be 209 gpm (thus, total uncaptured groundwater would be 21 gpm during PolyMet’s operations) is incongruous given the volume of water in the tailings system.	WR018, WR056, WR060
14755	the SDEIS also assumes that no seepage will be released into Second Creek and that no seepage will drain into groundwater beneath the vast, unlined tailings piles through fractures and historic streams or as a result of changes in topography as tailings are deposited. Each of these claims is unreasonable and unfounded.”	WR010, WR092, WR117, WR118
14756	The PolyMet SDEIS released to the public made no mention of fractures under the tailings basin—not one—even though the Preliminary SDEIS (PSDEIS) referred to “fractured bedrock” under the site. Even though, at a scale of 1:500,000, a 2011 statewide compilation of bedrock geology showed at least one long fault line running beneath the tailings site.	WR010, WR061
14757	It is reprehensible that crucial pieces of the PSDEIS never saw the light of day in the SDEIS, that a water treatment facility operating “for perpetuity” was redacted. Or that “fractured bedrock” under a tailings basin sank out of sight by the time the SDEIS was released. The EIS process is not supposed to be some kind of “hide and seek” game with the public.	NEPA05
14758	The co-lead agencies must reject the PolyMet SDEIS... make the company tell us how much pollution would occur and how nasty the results would be if the seepage collection was 50 percent effective, or maybe, on a good day, 75 percent effective. Have the courage and integrity to use field experience and science instead of wishful thinking and misdirection.	WR022, WR038
14982	Maps in the SDEIS released on December 6, 2013 make it appear that sulfuric acid and heavy metal containing mine runoff will drain only into the already impaired Saint Louis River watershed when in fact drainage can go to two watersheds, one of which includes the unspoiled Boundary Waters Canoe Area wilderness.	WILD01
14983	The downstream flow mapping feature of the <a href="http://www.nationalatlas.gov/streamer">www.nationalatlas.gov/streamer</a> map was used to show that the eastern portion of the One Hundred Mile Swamp drains via Langley Creek and the Dunka River to the BWCA, and that the drainage will also affect the Quetico Provincial Park along the US – Canada border.	WILD01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> River Point Resort & Outfitting Co. (39586)		
14984	Real life understanding of the effect of the proposed mine on the BWCA requires determining the split of waste drainage in the swamp that goes to the St. Louis River and BWCA watersheds by hydraulic conductivity testing which has not been done.	WR024, WR071, WR080, WR081, WR111, WR167, WR175
14985	Ongoing protection of the BWCA requires periodic water testing for mine waste at Langley Creek and the Dunka River which is not provided for in the uncorrected SDEIS.	WR024, WR081, WR111, WR175
14987	Untrustworthy conclusions about sulfide mining pollution from PolyMet's proposed mine can't go unresolved. The incorrect mapping in the SDEIS is a huge issue. This DEIS is flawed and must be rejected.	PD29, PD38
19005	I believe that some serious common sense must prevail in this proposed land exchange between the US Forest Service and PolyMet Mining, Inc (PolyMet) with the purpose of allowing a foreign sulfide mining company to garner federal lands so that copper, nickel and other precious minerals could be extracted resulting in the ultimate degradation of U.S. public lands, wetlands, and the entire watershed leading into Lake Superior.	WR111
<b>Sender Name (Submission ID)</b> RJoa (3951)		
700	I don't believe wetlands are replaceable. The wetlands in the proposed mine area are imperative for wildlife of all kinds as well as migrating fowl. It is my understanding that there is proportionally only a small quantity of wetlands in the watershed of the area. Replacing this biologically priceless land with a larger chunk of essentially man-made wetland that has already been robbed of its wealth in another part of the state could never be a "fair" trade.	WET03, WET14
701	there are stories all over the country of mining companies not doing what they've agreed to do as far as pollution mitigation. They go for years without supervision or inspections from federal or state authorities. When they are finally held accountable they simply say it is too expensive to correct and will cut into profits for shareholders or company owners. They pay a small fine and continue business as usual. Profits are considered a good reason to destroy the health of local people and lands.	FIN01
<b>Sender Name (Submission ID)</b> roadrunnerkappes@netscape.net (36861)		
8782	200 permanent jobs!!! Just a number!...the 200 job number is probably high and it is probably in the 150 employment range.	SO06
<b>Sender Name (Submission ID)</b> Rob Davis (18136)		
13514	And it's a near certainty that there will be millions of dollars of cleanup.	FIN05
13515	PolyMet is not a Minnesota company. It's just not a good deal for Minnesota.	SO06
<b>Sender Name (Submission ID)</b> Rob Grunewald (47779)		
11964	The EIS should specify in detail the impact of a large flood or other extreme weather event on PolyMet's proposed water filtration process. Over a 500 year period there is high risk that an extreme weather event would happen in the proposed mine area, especially with the prospects for increased weather volatility in the context of climate change	PD22, WR176

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rob Grunewald (47779)		
11970	The number of jobs created by PolyMet's mine should not be considered a tradeoff for a clean environment. Minnesota can wait as long as it takes until mining and containment technologies are proven to be effective.	SO01
11974	The EIS should assess the risk and implications for the environment if PolyMet is sold or goes into bankruptcy...A buyout or a bankruptcy has environmental implications due to the 500 years or longer of time required to maintain clean water at the mine site and surrounding area.	FIN01
14142	The state can and should wait until the sulfide mine water filtration technology has been tested and used in a multi-year project with absolute perfection in another location before trying it in Minnesota.	WR143
14145	We need time to reduce risks that ultimately the taxpayers of Minnesota would have to pay if PolyMet's proposed environmental clean-up plans fail.	FIN01
14146	Granted as mining technology improves, the number of jobs could be smaller in the future, but in that case the jobs will likely be even higher paying and safer.	SO06
14148	Mining companies like PolyMet that get projects off the ground can be bought out by larger multi-national corporations that have less investment in the local community. There is risk that if PolyMet is purchased by a large mining firm that the new owner will not show as much good faith in adhering to promises to safeguard water sources from contamination.	PER02
<b>Sender Name (Submission ID)</b> Rob Simonich (38377)		
13659	Based on the impact statement, I have total confidence in Poly Met and our DNR to do the right thing. No one wants to destroy what we have. That's why we live here.	PD28
<b>Sender Name (Submission ID)</b> Robby Bragg (40586)		
8894	The affects of this mine will be detrimental to not only the environment but will not help the economy or jobs in the long run either...Since the mine is a temporary endeavor so would be the workers' contracts. Unless you are planning on the environmental destruction that would be caused by this mine and the jobs that would come of that. If so, I think that is a pretty hypocritical precedent to set for our children.	SO02
<b>Sender Name (Submission ID)</b> ROBERT A BRODIE (14782)		
172	the few FULL time jobs that will result in this endeavor will not be worth the likely leakage of heavy metals into the water.	SO01
1750	[there is] the likelihood of the mining operations disrupting the water tables and creating havoc to populations of people and wildlife in the future.	WI06
1751	It is in the foreseeable future that water shortages will become an economic reality, with talk of getting water supplied to other states from Lake Superior...our clean water is an important source of life, not only for Minnesota's people and environment, but also as a viable economic tool for the future.	CU11
<b>Sender Name (Submission ID)</b> Robert A Johnson (11573)		
2224	By doing sulfide mining in Northern Minnesota you will not only harm the air and water, you will eliminate the tourism to the area. The animal life will suffer and our children ill no longer have a healthy future.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Robert A Johnson (11573)		
2224	By doing sulfide mining in Northern Minnesota you will not only harm the air and water, you will eliminate the tourism to the area. The animal life will suffer and our children ill no longer have a healthy future.	SO02
2225	What if the future holds another depression? Who will then pay for the clean-up? How do you restore a destroyed environment?	FIN01
2225	What if the future holds another depression? Who will then pay for the clean-up? How do you restore a destroyed environment?	FIN01
3243	I want you to consider what you are giving up. In 20 years fresh water will be scarce in Minnesota. If you left this wilderness area in good condition, our children could enjoy a healthy habitat along with the wildlife. People would pay a very high amount to visit such an area.	SO01
3243	I want you to consider what you are giving up. In 20 years fresh water will be scarce in Minnesota. If you left this wilderness area in good condition, our children could enjoy a healthy habitat along with the wildlife. People would pay a very high amount to visit such an area.	SO01
<b>Sender Name (Submission ID)</b> Robert Ambler (42089)		
2134	the SDEIS is insufficient... because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN01
2137	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
2142	Twenty years of mining, threatens hundreds of years of water pollution to sensitive birds and habitats. This trade-off is not worth the risk.	SO01
<b>Sender Name (Submission ID)</b> Robert and Barbara Engel (54585)		
18267	We need this for Minnesota jobs and development!	SO10
18267	We need this for Minnesota jobs and development!	SO10
<b>Sender Name (Submission ID)</b> Robert and Kathryn Stodala (57209)		
17123	Regarding the SDEIS, specifically the Partridge River baseline base flow and the XP-SWMM model predictions, we feel that base flow has been underestimated in the Partridge River by 3 to 4 times. This would mean transport of greater quantities of pollutants. Current base flow projections are outdated and do not align with the rating curve from the new MDNR winter monitoring data or data from the Dunka Rd gauge.	WR003
<b>Sender Name (Submission ID)</b> Robert Bartholomew (18213)		
2173	I believe in this system. They've done their job.	NEPA16
<b>Sender Name (Submission ID)</b> Robert Brandon (15748)		
12004	Please explain how 100-year swamp drainage into the Duncon River...has benen omitted from consideration.	WR080

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Robert Brandon (15748)		
12006	Concerned citizen worried about short-term gain for long-term loss.	SO01
<b>Sender Name (Submission ID)</b> Robert Bruner (33192)		
12183	Everyone is in favor of more jobs and economic activity. However, it is a forgone conclusion that the project will end up polluting the waters of the Arrowhead Region of Minnesota...This ends up being a tradeoff between water quality which serves everyone forever if we protect it, and short term economic gain for a small number.	SO01
12185	Everyone is in favor of more jobs and economic activity. However, it is a forgone conclusion that the project will end up polluting the waters of the Arrowhead Region of Minnesota...This ends up being a tradeoff between water quality which serves everyone forever if we protect it, and short term economic gain for a small number.	SO01
<b>Sender Name (Submission ID)</b> Robert Bullis (11280)		
12532	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Robert C. Jackson (47356)		
12244	Make a serious study of tunnel mining as an alternative.	ALT06
12246	Add weighted valuation to your overall damage risk strategy of avoidance, minimization, and compensation. In my value system avoidance has a much higher weighted value than minimization. Compensation, no matter what the dollar amount, is a last resort with almost no value compared to the loss or degradation of habitat for threatened animals, numerous plant species including wild rice, human health via air and water quality, and the land itself.	NEPA15
12250	Rethink the proposed land swap and mitigation plan. (...) Peat bogs are ancient with unique plant communities which cannot be replaced, at least not for thousands of years. Restoring wetlands elsewhere is not a good bargain.	WET05, WET15
12252	Let the MN Department of Health do a health impact assessment of the proposal. Northern Minnesota babies are already born too often with hazardous levels of mercury in the blood (...) The operation will release mercury into air and water. Also the risks of lung problems from amphibole mineral fibers released during rock-crushing operations seem unknown.	HU01
<b>Sender Name (Submission ID)</b> Robert Chapman (16775)		
12342	the BWCA is one of the last few preserved forests... An incredible plethora of wildlife and foliage resides in the BWCA (many of which don't exist anywhere else) and contaminating it is only blemishing the face of America.	WILD02
<b>Sender Name (Submission ID)</b> Robert Devine (4350)		
1807	This PolyMet proposal will be similarly 'rubber-stamped' [as the White Bear Lake aquifer depletion] by your leadership and no doubt all the public comments will be dutifully ignored as you serve your corporate masters.	NEPA15
1808	the executives [will] walk away with millions leaving someone else to suffer the environmental damage, birth defects and cleanup costs.	FIN01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Robert E McKlveen (42786)		
6864	The SDEIS fails to adequately and accurately account for the impact that the thousands of people like me have on the local economy, and the harm to the economy if the mine is built under the currently proposed conditions and restrictions. The current SDEIS fails to appropriately quantify the decrease in recreational economic activity that WILL occur if the mine is built. If the waters or air of the BWCAW and the surrounding area are damaged by this mine or its aftermath, fewer visitors (including myself) will come to the area. This would have a significant negative impact on the economy of the area that will outlast the productive life of the mine by decades or centuries. The SDEIS needs to account for this negative impact in a meaningful way.	SO04
12732	In addition, the model used to predict impacts to water quality has many flaws that may significantly under-represent pollution risks. Indeed, the model has been shown to be inaccurate in representing current conditions for water quality surrounding the mine site, undermining confidence that it can accurately predict future water conditions.	WR049, WR091, WR189
14102	There is evidence that the current surface and groundwater flows in the Partridge River basin that were used in the SDEIS were flawed. Correction of those errors may significantly impact the conclusions of the SDEIS.	WR003
14103	History tells us that such system failures [e.g., pipeline] DO occur, with regularity. Failure to plan for such failures is a recipe for environmental disaster.	PD22
<b>Sender Name (Submission ID)</b> Robert E. McKlveen (43049)		
12258	The SDEIS fails to adequately and accurately account for the impact that the thousands of people like me have on the local economy, and the harm to the economy if the mine is built under the currently proposed conditions and restrictions. The current SDEIS fails to appropriately quantify the decrease in recreational economic activity that WILL occur if the mine is built. If the waters or air of the BWCAW and the surrounding area are damaged by this mine or its aftermath, fewer visitors (including myself) will come to the area. This would have a significant negative impact on the economy of the area that will outlast the productive life of the mine by decades or centuries. The SDEIS needs to account for this negative impact in a meaningful way.	SO04
<b>Sender Name (Submission ID)</b> robert fors (57676)		
19362	This project will create much needed jobs in the region, provide tax revenues for the state, bring investment dollars into the state, and it will provide opportunities for educated young people to find employment in MN.	SO10
<b>Sender Name (Submission ID)</b> Robert Frame (46787)		
8629	The costs of trying to keep this copper mine (and its openly anticipated expansion) from being hugely damaging to water quality and from causing other environmental degradation is unknown, and unknowable. Therefore, the most stringent review as well as limitations/requirements on the company need to be the guiding principle for the DNR and the whole state.	FIN04, FIN05
<b>Sender Name (Submission ID)</b> Robert Herling (44923)		
8273	I would like you to reject the PolyMet Northmet sulfide mine project based on the extensive risk to water resources and human health in the Lake Superior Basin.	HU03
8274	PolyMet's SDEIS does not provide a comprehensive enough analysis of the long-standing impacts to clean water, ecological integrity, and human health.	NEPA09

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Robert Herling (44923)		
8275	I do not believe that enough consideration has been given to the long-standing economic impacts to Northeast Minnesota, and the state taxpayers at large.	SO04
8277	While the PolyMet project may increase economic activity in the region, those economic benefits would be very temporary and largely go outside of the state.	SO02
8286	the economic risks due to environmental clean-up would be virtually permanent and ultimately rest on the shoulders of Minnesota's taxpayers.	FIN01
<b>Sender Name (Submission ID)</b> Robert Hershovitz (18286)		
4121	Some of the cultural resources are very fragile and the damage cannot be undone. For example, if there is a faint historic trail that gets disturbed or destroyed, you can't restore it...Like an archeological resource, once it is disturbed, its value in terms of providing data, its value is diminished, if not lost...I'm not sure that it is possible to have adequate protection for some of those lost resources.	CR05
4122	I am concerned that the corporation that causes, for example, environmental damage really in the long run is not responsible for that damage and it can declare bankruptcy and walk away, and the citizens of the state are left holding the bag to pay for the cleanup for however many years...If the...company would be willing to put up a surety bond for even 200 or 250 years, 500 years ideally, then the citizens would have some assurance that we will not have to pay for the damage caused	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Robert Hoekstra (34903)		
13255	PolyMet's destructive and polluting open pit sulfide mining cannot be allowed to negatively impact the region's natural resources and public health of the Superior National Forest.	WILD02
13257	Sulfide mining in Minnesota threatens wetlands, rivers, lakes and streams.	WR115
<b>Sender Name (Submission ID)</b> Robert Johnson (11946)		
13735	I don't see any good reason for someone to rush into this beautiful area, pillage the minerals, provide a small number of jobs for 20 years, and then disappear, leaving Minnesotans with a few dollars for the minerals they have plundered, and an environmental mess for the taxpayers in the state to clean up. If it can ever be cleaned up...There is no way that anyone can forecast what the total cost will be to clean up the damage from the proposed operation.Please enforce the rules in the laws that Minnesota already has, and do not allow this mine to be permitted to operate!	FIN05, FIN10
14821	Sulfide mining is a very dirty process, and it should not be done in Northern Minnesota. It shouldn't be done at all. You know, we should save these pristine areas when the climate really gets bad. We don't know what the future holds. There could be a depression in the future.	SO01
14822	they expect the people of Minnesota to pay for the cleanup. Now, how is it that a foreign corporation can come into Minnesota, make profits off our land, leave, and leave us with the cost of cleaning it up?	FIN10
<b>Sender Name (Submission ID)</b> Robert Kaiser (13069)		
1713	We must be constantly reminded of all the water pollution questions that thisproject proposes, not how much money can be made from mining minerals.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Robert Kosuth (57206)		
17113	Problems:Elaws in the study re water flow200-500 year timeline = total irrationality – similar to nuke waste storage	WR035
<b>Sender Name (Submission ID)</b> Robert Lawrence Dryke (57149)		
16843	Will...PolyMet provide continuous insurance, bonds and monies for the future problems and effects the ore processing causes that are unknown?	FIN01, FIN08
<b>Sender Name (Submission ID)</b> Robert Lohman (18265)		
13879	But I think the PolyMet mining proposal ranks right up there with having a hazardous waste site and it is pretty close to having a nuclear waste site in Minnesota. I can't understand how anybody is willing to put Lake Superior, the Boundary Waters wilderness, various wetlands, plants and animals at risk. For what? 350 jobs, 500 jobs for 20 years?	SO01
13880	Another thing I can't understand is why would we even be talking to PolyMet, who has never operated a plant?..I was also thinking about Glencore...So, we're inviting corporations like this into Minnesota and we are going to take their word for the fact that they have state-of-the-art technology and nothing is going to happen?	PD23
<b>Sender Name (Submission ID)</b> Robert McKlveen (18388)		
12097	The SDEIS fails to adequately and accurately account for the impact that the thousands of people like me [tourists] have on the local economy, and the harm to the economy if the mine is built under the currently proposed conditions and restrictions.	SO02
12099	If the waters or air of the BWCAW and the surrounding areas are damaged by this mine or it's aftermath, fewer visitors (including myself) will come to the area. This would have a significant negative impact on the economy of the area that will outlast the pdocutive life of the mine by decades or centruies.	SO01
15239	[The SDEIS needs to account for the effects of reduced tourism] in a meaningful way.	SO02
<b>Sender Name (Submission ID)</b> Robert Nanti (7376)		
734	I am writing in support of the environmental review process in place that is evaluating the project, ensuring that the project will comply with existing regulations. Minnesota, for many years, has been a leader in protecting its environment. I have found the SDEIS process, although lengthy, to be a sound and detailed process, based upon scientific principles and not prone to political maneuvering.	NEPA16
<b>Sender Name (Submission ID)</b> Robert Risch (44099)		
8006	Sulfide mining... [has the] potential to create long term pollution as waste materials are exposed to water over the years. This will happen both from rain water and from the mine being located in an extremely high, water-rich environment.	WR001
14905	Financial assurances, to deal with this long term reality, would have to extend beyond the lifetime of anyone alive today...To my knowledge, no financial assurance, of this open ended duration, by a corporation, has ever been enacted and/or is still successfully being carried out.	FIN01
<b>Sender Name (Submission ID)</b> Robert Rydell (16215)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Robert Rydell (16215)		
10110	For the few jobs created, the trade off of the water pollution for 500 years or more is unacceptable.	SO01
<b>Sender Name (Submission ID)</b> Robert Schmitz (50037)		
12994	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
12997	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Robert Stevens (50086)		
13026	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Robert Stodola (54835)		
18703	I'm extremely worried about the lack of human studies from PolyMet -- no epidemiological references to what long-term exposure to sulfation - sulfides, & toxic metals: mercury, cobalt, arsenic. MN EPA hasn't insisted on this information, so the effects will only become apparent if the proposal is approved -- with us as guinea-pigs.	HU01
18710	There will most certainly be long term degradation to the St. Louis Lower basin that dumps into Duluth bay from the surface and groundwater runoffs that will most surely happen.	WR111
<b>Sender Name (Submission ID)</b> Robert Tammen (54840)		
18832	As a firewall against excessive meddling by agency personnel, the mining industry hires retiring State employees to make sure that any "adapting" they must do is favorable to their bottom line. Our environment should not be exposed to the vagaries of adaptive management.	NEPA18
18833	Several documents refer to PolyMet and Poly Met (Two words). There must be a reason for having two different legal entities. The SDEIS should explain the difference and perhaps declare which will get dividends and which will have environmental clean up liability.	EDIT01
18834	Federal, state, and local taxes. The SDEIS does not quantify rebates traditionally given to the mining industry. Our history of rebates to the taconite industry should be documented and the probability of rebates to the sulfide mining industry should be acknowledged...5-503 Operations. IMPLAN discussion does not address the Minnesota policy of rebating taxes to themining industry. Disclose rebates.	SO05
18837	ES-40 IMPLAN. The November 2012 UMD Economic Impact Report and it's IMPLAN references are not credible. Page 4 declares that mining totals approximately 5.3% of Minnesota's Gross Regional Product but the same page lists Minnesota GRP as \$281.1 billion and mining GRP as \$4.5 billion. Mining is obviously less than 2% of Minnesota's economy.	REF01
18841	ES-41 "There is no legal access to the federal lands via land,... The SDEIS should acknowledge that the mining industry has the power to prevent American citizens from accessing Superior National Forest land and should resist efforts to give the industry even more power by facilitating a sulfide mining operation in Minnesota.	LU06

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Robert Tammen (54840)	
18846	ES-41 Cumulative Effects. Respected geologists have estimated that the Duluth Complex is a 1 billion ton ore body and have predicted with great certainty that it will be developed. ... the State should ...be able to give a reasonable estimate of the square miles of pits, waste dumps, and tailings ponds that will be created in our water rich environment by the processing of our sulfide ore.	CU18
18851	Purpose and Need. There is little economic evidence for proposing mining for purposes of economic development... Mining no longer creates healthy communities.	NEPA01
18855	Endocrine disrupters should be evaluated by the SDEIS. Several metals are endocrine disrupters and the synergistic and cumulative impacts should be evaluated.	HU02
18856	The SDEIS should report that the consent decree was not entered into by theState until an environmental group filed a 60 day notice of intent to sue in federal court. This seems to indicate that the State of Minnesota will not regulate the mining industry unless requested to do so	PER06
18859	Discussion of tailings storage should include an evaluation of the 1,000' crack inthe Hibtac dike in February of 2012 and possible applicability to understanding of Polymet's proposed tailing storage plan.	GT02
18861	4-165 "The Plant Site is located north of the Laurentian Divide ...Misprint? The plant is South of the divide. See map.	EDIT01
18864	4-371 "higher-sulfur waste rock" Percent sulfur of the Dunka waste rock that was buried in LTVSMC tailings should be disclosed.	PD30
18867	4-376 Last paragraph. Heal should be heel.	EDIT01
18870	5-5 "located in ... Mesabi Iron Range" The mine is located in the Duluth Complex in the Superior National Forest. Once again, the SDEIS deserves an EU-3.	EDIT01
18874	5-5 "waste rock is predicted to average 0.15 percent sulfide" From the Northern Miner January 14, 2008 authorized reprint. "Waste rock ... can have up to 6% sulphur content."	GEN03
18902	5-113 Bedrock Groundwater. SDEIS should disclose that exploratory drillings do not have to be sealed for 10 years and the consequences in ubiquitous briny water formations.	WR078
18903	5-525 Mishandling ... discharge into the environment. Even proper handling of ANFO results in the discharge of ultra-fine particles into the environment. SDEIS should analyze fine particle discharge from blasting.	AIR04
18904	5-532 Lime. The SDEIS should analyze the consequences of increasing the amount of calcium in waters that might be invaded by zebra mussels.	AQ17
18905	6-1 reasonably foreseeable. The impacts of developing a 10 billion ton ore body as described by geologists in Minnesota should be evaluated as reasonably foreseeable.	CU07
18906	Table 6.2-1 Mesaba Energy Project. The IRRRB has granted Mesaba Energy an option to purchase land near Hibbing for a gas power plant. Update table. At the same meeting the IRRRB granted the City of Hibbing an option to purchase land for a possible Racino. This was probably an effort to pressure tribal interests by threatening to compete with Fortune Bay and Black Bear casinos. The actions were connected and should be analyzed.	EDIT01
18907	6-9 6.2.2.1.6 Essar ... begin operation in 2014. Essar will not begin operation in 2014. Update SDEIS.	EDIT01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Robert Tammen (54840)		
18908	6-14 "a portion of Highway 53 ... would need to be relocated". The SDEIS should disclose that Minnesota taxpayers will pay to move the highway for Cliffs Natural Resources and that it would be reasonable to expect unanticipated taxpayer costs for Poly Met.	FIN10
18909	6-16 cumulative effects on groundwater. NRRI TR 2005/01 states that over 2,000 exploratory holes have been drilled in the Duluth Complex. Geological maps show numerous faults in the vicinity of Polymet's operations. The possibility for cumulative effects in an area with saline groundwater is obvious.	WR010, WR023
18910	7-10 irreversible loss of ore. The November 2013 Minnesota Mining Tax Guide describes ore as a wasting asset and allows a percentage depletion allowance for the reduction in reserves. The SDEIS should give us an estimation of the value of Polymet's ore asset so that the public could evaluate the benefits of leaving that ore in the ground.	SO07
18913	7-12 Unavoidable Adverse Effects. The mining industry is stripping Minnesota's mineral assets. That unavoidable effect should be quantified by the SDEIS and a reasonable estimate made of the long term financial benefit of leaving the Superior National Forest intact for future generations.	SO07
18915	A-5 Thematic Response. AQ-1. Oar should be ore.	EDIT01
<b>Sender Name (Submission ID)</b> Robert Tipping (43010)		
11682	the SDEIS states "The concern for the NorthMet Project Proposed Action is whether excavation of the East Pit and West Pit could penetrate zones of saline or briny groundwater or otherwise draw these waters to the surface, thereby increasing the salinity of the West Pit water, which is proposed for treatment at the WWTF" (SDEIS 5-113). ...the presence of saline water has broader implications regarding the modeling characterization of the Duluth Complex in the SDEIS as a homogeneous low-permeability hydrogeologic unit...The conceptual hydrogeologic model presented in the SDEIS of the mine, plant and tailings basin site, particularly with regard to solute transport, would be improved with an inventory of chloride to bromide ratios for surface water and groundwater. ...The presence of some admixture of these waters in the near surface (less than 500 feet) indicates there may be hydraulically active fractures in the bedrock.	WR012
<b>Sender Name (Submission ID)</b> Robert Tomassoni (18259)		
13709	The PolyMet plan is built on the latest science, mechanics and world-class engineering. We can build a world-class mining facility in northern Minnesota. We can mine copper, nickel, gold, and other precious metals better than anyone else in the world and we can do it safely and in an environmentally friendly manner.	SO10
19977	The experts have reviewed this permit and we can do this properly... Let's move forward to protect our country, to create good paying jobs while mining these minerals in a safe and environmentally safe mine.	GEN02, SO10
<b>Sender Name (Submission ID)</b> Robert Topliff (9497)		
179	Lake Superior is sacred, and we cannot take the risk of contamination again	WR111
<b>Sender Name (Submission ID)</b> Robert W Trevis (4710)		
1875	there [needs to be]... continuous oversight by State of Minnesota employees during construction of any retention/holding water bodies, as well as continued inspection/oversight on a weekly basis so long as the mine operates.	PER06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Robert Walker (18218)		
1281	Lake Superior is the largest body of fresh water in the world, and we need to protect that water, and the way we can do that is to make sure that we develop our economy in ways that will not pollute that water, and there hasn't been a sulfide mine anywhere that hasn't had the problems...	WR023, WR111
<b>Sender Name (Submission ID)</b> Robert Watson (13597)		
122	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
123	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
124	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Roberta Dale (57963)		
19847	the long term consequences for water quality and wildlife are far more critical issues.	GEN03
<b>Sender Name (Submission ID)</b> Roberta Mistretta (19945)		
1549	This will RUIN our ground waters, you KNOW it but continue to PRETEND there is nothing to be concerned about.	WR107, WR108
<b>Sender Name (Submission ID)</b> Roberta Otto (54748)		
19146	I believe the environmental review process has not been sound and thorough. The state and federal regulators cannot ensure that Polymer's project design, and its control and measures will address potential environmental impacts and will not meet all states and federal regulations.	PER35
19147	Big mining companies will once again leave our state totally destructed, with only large dumps and empty mines that cannot support tourism much less jobs.	LU06
<b>Sender Name (Submission ID)</b> Roberta Ryan (44692)		
7195	While economics are important, this endeavor simply isn't worth the possible risks.	SO01
7199	No matter how tight regulations are or how careful everyone is, it's impossible to control everything all of the time.	PER06
7200	I'm not willing to gamble Minnesota's wildlands for profit and prosperity.	SO02
<b>Sender Name (Submission ID)</b> Roberta Tietge (11632)		
2316	The poisons produced will harm water (people's and animals' drinking/recreation) water. It will harm people, and wildlife.	WR071, WR189

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Roberta Tietge (11632)		
2316	The poisons produced will harm water (people’s and animals’ drinking/recreation) water. It will harm people, and wildlife.	HU03, WR042, WR115, WR195
2317	The BWCAW is a globally unique [illegible] (HARD WON) ecosystem. THIS WILL BE VIOLATED.	WILD02
2317	The BWCAW is a globally unique [illegible] (HARD WON) ecosystem. THIS WILL BE VIOLATED.	WILD02
2318	When PolyMet cuts and runs, leaving a polluted and costly problem, how will our state agencies who supported them look??	FIN01
2318	When PolyMet cuts and runs, leaving a polluted and costly problem, how will our state agencies who supported them look??	FIN01
3323	The acids will infiltrate 3 watersheds, groundwater, and aquifers. We are on shallow glacially scraped soil and mostly granite.	AQ12, AQ28, WR003, WR111
3323	The acids will infiltrate 3 watersheds, groundwater, and aquifers. We are on shallow glacially scraped soil and mostly granite.	WR111, WR115
8201	Resource Recovery Efforts Must Be Investigated First. Cu recovery from old computers and pennies...This will exceed any mineral below the surface of NE MN. We have this technology AND IT WOULD CREATE JOBS!!	NEPA06
8201	Resource Recovery Efforts Must Be Investigated First. Cu recovery from old computers and pennies...This will exceed any mineral below the surface of NE MN. We have this technology AND IT WOULD CREATE JOBS!!	NEPA06
<b>Sender Name (Submission ID)</b> Robin Bunney (9592)		
1133	I support this project, as well as the process that got us to this point. The information tables really helped put the process into layman terms. I was impressed by the depth of research	NEPA16
<b>Sender Name (Submission ID)</b> Robin Peterson (54511)		
18755	What measures will be taken to assure that wildlife, both aquatic and land animals will not be exposed to the by products of this mining process? Mercury, sulfur, etc!	PD01
<b>Sender Name (Submission ID)</b> Robin Poppe (42769)		
6674	1.The plan predicts that contaminants from permanent waste rock and tailings would require treatment for hundreds of years. Polymet will not be around for hundreds of years to treat the polluted water they created. Nor will the money set aside for treatment lasts hundreds of years.2.Millions of gallons of this untreated contaminated water will seep from the site into groundwater and nearby streams and river.3.The polluted contaminated water would increase arsenic into Hoyt Lakes drinking water by 38.5% above the level of concern in MN cancer risk rate.4.The report is missing important data needed to predict levels of pollution that would be released into streams and ground water.	WR037, WR038, WR043, WR060, WR070, WR071, WR107, WR108
6675	5.PolyMet does not provide details about how to calculate an adequate damage deposit to protect taxpayers from the cost of clean-up of PolyMet’s polluted site.6.PolyMet does not have a plan for problems like pipeline breaks or extreme weather events.	FIN05, FIN10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Robin Poppe (42769)		
14525	2.Millions of gallons of this untreated contaminated water will seep from the site into groundwater and nearby streams and river...The report is missing important data needed to predict levels of pollution that would be released into streams and ground water.	WR060, WR070, WR135
14526	3.The polluted contaminated water would increase arsenic into Hoyt Lakes drinking water by 38.5% above the level of concern in MN cancer risk rate.	HU05
<b>Sender Name (Submission ID)</b> Robin Raplinger (45883)		
11382	How could such an estimate of costs ever be accurate and guaranteed for 200-500 years or more? PolyMet does not have the resources to guarantee those immense liabilities and could be described as a "shell corporation" when the major investors, including Glencore, enjoy that protection.	FIN01
11386	What this proposal asks you to accept is 20 yrs of 200-300 jobs and promise that PolyMet will fund everything for 200-500 yrs.	SO01
12587	There is an alternative plan of an exchange of 4,901 acres. The SDEIS does not explain how the smaller land exchange would affect the project. With a different property boundary resulting from the alternative plan there is not analysis in the SDEIS of the affects of that change. The SDEIS does not explain the change in ground water seepage with the boundary closer to the category 1 waste rock pile, the West Pit, and adjacent creeks (Longnose). •The SDEIS must be rejected until it contains an analysis the effect of water and other pollution if that alternative is selected.	WR155
12595	No analysis of increase road fatalities to endangered species throughout the building or site preparation and mining or production phases. There are 11 state-listed Endangered, Threatened, or Special Concern (ETSC) plant species and six state-listed ETSC wildlife species known to occur within the project area. State-listed wildlife includes the gray wolf, bald eagle, wood turtle, eastern heather vole, yellow rail, and Laurentian tiger beetle. There is not much, in the PolyMet plans, about the effect on the already declining moose population.	VEG01, WI01
12608	The SDEIS must be rejected until a cumulative assessment of arsenic exposure and cancer risks for people including formula fed infants and people relying on fish and wild rice for food is completed and incorporated in future EIS's.The Minn. Dept. of Health should be included to analysis both workers and residents' effect on their health. Minn. Dept. of Health study must include the projects immediate and cumulative effects of arsenic on infants, children. Such Health Assessment is missing from the SDEIS and I ask that it be included	HU01
12618	...there are mistakes in the modeling of base water flow rate using the XP-SWMM modeling tool. XP-SWMM underestimated base flow rate by about three times the real base flow. The Cooperating Agencies believe that the XP-SWMM model to be inaccurate and they were correct. The Cooperating Agencies found that the GoldSim model similarly inaccurate for this project's conditions...•More appropriate models, or better yet on site testing and scientific hydrological observations, should be done to determine base and other flow rates.	WR106
12621	•The SDEIS must be redone to incorporate a 70yr "lifetime" , not the 30 yr. criteria use in the SDEIS (pages 5-421, 5-424 and 5-426) , for cancer exposures for workers and effected nearby residents as used by the EPA and the State of Minnesota .	HU01
12652	The PolyMet tailings basin is located on the old, 1950's, LTV tailings piles that cover about two square miles. On top of the old tailings PolyMet proposes to dump sulfide tailings leeching acid and metals. PolyMet claims they will collect, despite the increased seepage resulting from PolyMet's activities, over 99% of surface and ground water seepage. (SDEIS p. 5-159) They do not show any comparable collection from any unlined tailings pile. It is not realistic. There is no experiential basis for that collection percentage.	WR020, WR023
12660	The tailings pile is constructed over streams allowing drainage or seepage. This is a historic water flow pattern but is ignored in the SDEIS. The sub basin streams are in the Draft PolyMet EIS Figure 4.1.9. One stream flows to Spring Mine Creek which is already impaired. This flow evades the collection pumps.	WR056, WR092, WR096, WR104

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<b>Sender Name (Submission ID)</b>	Robin Raplinger (45883)	
12662	The SDEIS does not address fractures beneath the tailings basin. They are known pathways of contaminant migration to ground or surface water. This is already happening as is shown in the SDEIS p. 4-12 area of concern #8.	WR010, WR012, WR061, WR071, WR099, WR168
12687	The alternatives considered in the SDEIS simply amount to the PolyMet plan, or a smaller amount of land exchange, or no action. There are no substantial or significant mining alternatives in the SDEIS. The SDEIS must be rejected until: Underground mining is considered or other substantial or significant mining alternatives are analyzed. Thousands of acres of wetlands could be saved with an underground option.	ALT01, ALT06
12690	The SDEIS [must] reflect the goals and requirements of Minnesota Administrative rule 6132.3200 CLOSURE AND POSTCLOSURE MAINTENANCE...It is clearly not the goal of the PolyMet SDEIS to be, upon closing, stable, free of hazards, minimizing hydrologic impacts, minimizing the release of substances that adversely impact other natural resources, and is maintenance free. Instead the SDEIS contemplates virtual perpetual maintenance. For a State Agency such as the DNR to ignore the law, and its goals, is a breach of that agency's duties, and that agency's commissioner's duty, to obey the laws of Minnesota.	PER04
12693	"financial assurance instruments covering the estimated cost of reclamation" is required. There is an estimation of 120-170 million dollars at closure and 3.5-6 million dollars per year after closure.... How could such a Financial Assurance estimate of costs ever be accurate and guaranteed for 200-500 years or more? We have no idea what changes in law and the economy could take place in 200-500 years.... Could anybody believe PolyMet or their "financial assurance" will be around hundreds of years after the mine operation, and its value, is gone?	FIN01, FIN05, FIN08
14328	The Cooperating agencies have been correct, as one co-lead agency MDRN now recognizes, in there objection to relying on the deficient and misleading reliance on XP-SWMM model used to extrapolate flow data. This model is flawed, as direct observation shows. The SDEIS must be reworked and revised concerning this aspect.	WR003
14329	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	PD03, PD32
16868	PolyMet is receiving land that that will have a increased value, above and beyond the value of the separate rights or ownership interests, as they will have unified surface and mineral rights. The exchanged land that ends up in public ownership will have less value as a result of the divided nature of the surface and mineral rights. The land exchange must be rejected until bona fide appraisals are available for citizen taxpayer comment.	LAN02
16869	The sole reason for the proposed land exchange is to allow a private entity, PolyMet, to take lands that are now available for multiple uses including wildlife habitat, forestry, hunting, gathering and recreational uses and convert those lands into a single use, PolyMet's mining activities. This is an economic justice issue. The land in the proposed exchange will be used exclusively for the proposed project and all other uses will be eliminated for decades if not permanently. This does not serve the public interest.	LAN01
16870	One reason given for the land exchange is to unify ownership of the surface and subsurface mineral rights. The proposed land exchange attains that goal only for PolyMet. The exchanged lands that end up with the Forest Service will all have severed mineral rights. The exchanged lands that end up with the Forest Service will all vulnerable to future mining activities. This not an equitable exchange and the public receive less value in the exchange.	LAN04
16871	The remediation plans include introduction of at least two non-native plants.	VEG05

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<b>Sender Name (Submission ID)</b> Robin Raplinger (45883)		
16872	The EPA rates arsenic as a Class A carcinogen. Colby lake supplies drinking water for the city of Hoyt Lakes . The SDEIS 5-145 states that arsenic levels will increase 38.5%. The EPA adopted rules with thresholds of unacceptable increases of cancer due to arsenic. The Colby lake increases in arsenic show in the SDEIS are above the EPA’S threshold (40 C.F.R. 131.36) and the Minnesota cancer risk.	HAZ02
16873	The SDEIS must be rejected until: Accurate scientific hydrological observations and findings can be made concerning mercury pollution and bio-accumulation in the St. Louis River and all its tributaries.	MERC19
16874	Many emissions the PolyMet mine and plant increase the risk of cancer for on-site workers and people living around the operation. Such emissions include nickel dust, dioxins and asbestos-like fibers in some rock near the PolyMet site. Mesothelioma is a known risk for Minnesota taconite workers. There have been calculations for similar cancer risks done by the Dept. of Health at the Prairie Island Nuclear Plant for on-site workers. Off site, arsenic increases in the drinking water are a cancer risk for inhabitants of Hoyt Lakes. The SDEIS does not analyze health effects on the workers.	HU02
16875	There is heavy reliance on collection and Reverse Osmosis water filtration. There is not Reverse Osmosis water filtration for up to 40 years into the project according to the SDEIS...RO WWTP should begin at the same time as mining.	WR143
16876	•The SDEIS must be rejected until [there is an] Analysis of the possibility of backfilling waste rock into one of the pits, instead of piling outside, to reduce runoff and other forms of pollution.	ALT03
16877	The polymet SDEIS addresses financial assurances basically to keep the RO pumps running, no plans for failure or unplanned expenses.	FIN05
16878	The SDEIS must be rejected until:•The SDEIS analyzes the long term cost to health, the environment and perpetual treatment of water pollution from this mine. •The SDEIS analyzes the possible, and probability of, failures or unplanned for expenses in the perpetual treatment of water pollution from this mine.•The SDEIS analyzes and designs funding mechanisms to fund those perpetual liabilities.	FIN05, FIN08
<b>Sender Name (Submission ID)</b> Robin Stark (5969)		
1954	We need the jobs, the economic growth, and spin offs from this project.	SO10
1998	I stand behind and trust the state and federal agencies that are involved in preparing this document.	NEPA16
<b>Sender Name (Submission ID)</b> Robin Vora (21380)		
995	I don't believe the short-term economic benefits, including possibly increased valuation of my property near Aurora, justify the potential long-term adverse impacts to the environment.	SO01
996	I am not convinced that over time water quality will be protected. Increased aluminum, lead,mercury, copper, cobalt, nickel and sulfate concentrations in wetlands, including lakes, rivers and groundwater are unacceptable	WET24
997	Besides damage to water quality, the project would result in: net loss of forest, natural wetlands, and wildlife habitat; direct harm to rare plants and their habitats; loss of areas of high biodiversity significance, reduced carbon sequestration and increased carbon emissions; and air pollution.	VEG01, VEG02, VEG03, WET13, WI02
998	The EIS does not address mitigation of reduction of lands available to tribal members to hunt, fish and gather	CR01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Robin Vora (21380)		
1001	The amounts of insurance and the reclamation bond are inadequate. The mining company must have sufficient insurance and a large enough bond to cover all potential accidents, repairs, insufficient mitigations measures, and site restoration when mining is completed.	FIN05, FIN11
1003	The EIS has an inadequate range of alternatives. There must be other practical alternatives that reduce impacts on wetlands, forests, and wildlife habitats.	ALT13, ALT23
1006	a near 1:1 land exchange is not justified. Lands used for mining are worth far more in dollars than forest lands. Government policies require land exchanges be of lands of equal value, not equal area. ...The Superior National Forest should gain many more acres from the land exchange than proposed or the mining project should be reduced significantly in size if transferring only 6,722 acres from private to public ownership.	LAN03
1330	The EIS does not address ... how adverse environmental effects may be exacerbated by potential climate change	AIR01
1333	I recall a land exchange in the 1990s in which LTV Mining provided the U.S. Forest Service with about 5,000 acres in exchange for 40 acres within the LTV mine.	LAN03
1334	The proposed PolyMet land exchange does not serve the public interest	LAN01
1336	The EIS needs to include a real and comprehensive economic analysis of land values.	SO04
1339	The long-term public benefit of these lands [used by tribal members] would be reduced significantly by this project.	LU06
<b>Sender Name (Submission ID)</b> Rod Fisher (42273)		
6756	I am a chemical engineer that understands the potential economic value and potential environmental costs of such operations. This is simply not worth the risk to such an important region	SO01
<b>Sender Name (Submission ID)</b> Rodger and Kathryn Ringham (43008)		
11669	The long term impact of mining in the Eveleth and Virginia communities has actually worsened the local economies as diverse business left. Tourism declined.	SO02
15329	Taxes from mining will be abysmally low. Recent records showed one mining company paying 3.5%. They have already located buildings in tax free zones.	SO05
15330	Good, long term jobs will be minimal. Specialized workers outside of Minnesota would be needed for the skilled jobs...Many initial jobs will be eliminated. Consider this: mining companies are currently testing GPS controlled loaders that require NO OPERATORS!	SO06
15331	Rain on taconite tailings produces rust. Rain on precious metals waste produces sulfuric acid!...Water pollution will not only impact local communities such as Ely, but also Lake Superior and Canada.	WR001
15332	Poly Met has NO experience with copper nickel mining...Every sulfide mine to date has had detrimental impact to the environment.	PD26
<b>Sender Name (Submission ID)</b> Rodger F Ringham (54512)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rodger F Ringham (54512)		
18748	The long term impact of mining in the Eveleth and Virginia communities has actually worsened the local economies as diverse business left. Tourism declined.	SO02
18749	Taxes from mining will be abysmally low. Recent records showed one mining company paying 3.5%. They have already located buildings in tax free zones.	SO02
18750	Good, long term jobs will be minimal. Specialized workers outside of Minnesota would be needed for the skilled jobs. ... Many initial jobs will be eliminated. Consider this: mining companies are currently testing GPS controlled loaders that require NO OPERATORS!	SO06
18751	Water pollution will not only impact local communities such as Ely, but also Lake Superior and Canada.	WR111
18753	Poly Met has NO experience with copper nick~l mining. ... Every sulfide mine to date has had detrimental impact to the environment.	PD23, PD26
18754	Rain on taconite tailings produces rust. Rain on precious metals waste produces sulfuric acid!	WR001
<b>Sender Name (Submission ID)</b> Rodney Bleifuss (46884)		
10819	There is no way to justify this development based on current studies. The potential environmental impacts simply outweigh the economic benefits to Minnesotans.	SO01
<b>Sender Name (Submission ID)</b> Rodney Monson (20172)		
1744	I am in favor of the Poly Met Mining project becoming a reality. What an opportunity for the State of Minnesota to show us Minnesotans and the rest of the country that we are indeed interested in bring good pay jobs to our State.	SO10
<b>Sender Name (Submission ID)</b> Roer A Powell (54634)		
18606	At present, both the proposed mine site and the land proposed for the exchange are good wildlife habitat. After an exchange, the mine site will no longer be good habitat. So, wildlife lose.	WI02
18629	Aluminum and lead levels are projected to exceed water quality limits. This outcome is not acceptable. The SDEIS should show the public how PolyMet proposes to avoid exceeding these water quality limits or the NorthMet Project should not be permitted.	WR064
18631	MDO # 1, 7, 13, 14: The responses of the co-lead agencies to these MDOs are stated clearly to be based on "belief" and also appear to be based on misunderstandings of biology, limnology and model results. An EIS is not to be based on "belief" but on the best science and technology. Our best knowledge arises from what science and technology have demonstrated and does not arise from "belief". The responses of the co~lead agencies must be revised to be based on established science and technology, including appropriate citations of appropriate professional publications.	NEPA12
<b>Sender Name (Submission ID)</b> Roger A Morrison (52295)		
10765	Know this is a fragile ecosystem I am worried about the possible impact on the BWCA posed by mine drainage at the PolyMet's NorthMet project.	WR111

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<b>Sender Name (Submission ID)</b> Roger A Morrison (52295)		
10770	In my review of the government maps of this area it shows a need to determine the actual effect of mine drainage into the waterways on the edge of the Boundary Waters.	WR024, WR081, WR111, WR175
10772	The proposed mine site is uphill from the One Hundred Mile Swamp, which drains into the BWCA watershed. There is a lack of testing and research...to show that water entering One Hundred Mile Swamp will not then flow into Rainy Lake and the BWCA watershed. This is evident by the authors of the Supplemental Draft Environmental Impact Statement (SDEIS) using incorrect maps which contradict the government maps along with omitting sections of the One Hundred Mile Swamp... I think that PolyMet needs to complete a new SDEIS using the correct maps and the project should not be allowed to progress until the new information can be reviewed.	WR024, WR080, WR081, WR085, WR111, WR167, WR175
10774	I also have concerns that there is little or no assurance that PolyMet LLC has the financial resources to ensure that any damage done to the environment will be adequately and properly cleaned up.	FIN01
<b>Sender Name (Submission ID)</b> Roger A Powell (42879)		
9474	The SDEIS makes clear that treatment of contaminated water will be "perpetual" in the sense that the models in the SDEIS project for only 200 or 500 years and for most contaminants no decrease in contamination is seen in the graphs through the projected 200 or 500 years of treatment. The SDEIS does not state how the treatments will be maintained for hundreds of years.	WR128
9474	The SDEIS makes clear that treatment of contaminated water will be "perpetual" in the sense that the models in the SDEIS project for only 200 or 500 years and for most contaminants no decrease in contamination is seen in the graphs through the projected 200 or 500 years of treatment. The SDEIS does not state how the treatments will be maintained for hundreds of years.	WR128
9475	It does not state how long geomembrane covers and liners will last, how they will be replaced, and what replacement will cost. It does not state how long the equipment doing the treatment is projected to last and how it will be replaced when it fails. It does not state how PolyMet will maintain the physical plant. And, in general, it does not provide adequate information for the general public, voters and regulating agencies to evaluate whether PolyMet will be able to treat contaminated water as projected.	FIN01, FIN05, FIN06, WR127, WR128, WR138
9475	It does not state how long geomembrane covers and liners will last, how they will be replaced, and what replacement will cost. It does not state how long the equipment doing the treatment is projected to last and how it will be replaced when it fails. It does not state how PolyMet will maintain the physical plant. And, in general, it does not provide adequate information for the general public, voters and regulating agencies to evaluate whether PolyMet will be able to treat contaminated water as projected.	WR003, WR189
9476	Given that PolyMet has stated in its 2013 Annual Report that it has no experience with treating contaminated water, the SDEIS must tell the public exactly how PolyMet will use and maintain water treatment for more than 500 years.	PD01, PD23
9476	Given that PolyMet has stated in its 2013 Annual Report that it has no experience with treating contaminated water, the SDEIS must tell the public exactly how PolyMet will use and maintain water treatment for more than 500 years.	PD01, PD23
9483	The SDEIS continually states that the selected actions are "expected" or "modeled" or "projected" to be such-and-such. The SDEIS does not state that actions have been shown by previous example or by research to do such-and-such. The wording makes clear that PolyMet will be experimenting with the NorthMet Project, putting northern Minnesota in jeopardy.	PD26, WR023
9483	The SDEIS continually states that the selected actions are "expected" or "modeled" or "projected" to be such-and-such. The SDEIS does not state that actions have been shown by previous example or by research to do such-and-such. The wording makes clear that PolyMet will be experimenting with the NorthMet Project, putting northern Minnesota in jeopardy.	WR023

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
9488	The SDEIS does not address effects on the environment or on the economy if a major breach occurs for the system that PolyMet proposes to build to control pollution. The public needs to know how PolyMet proposes to respond to the worst case scenario, given that PolyMet has no experience with cleaning up environmental contamination.	HAZ01, NEPA09
9488	The SDEIS does not address effects on the environment or on the economy if a major breach occurs for the system that PolyMet proposes to build to control pollution. The public needs to know how PolyMet proposes to respond to the worst case scenario, given that PolyMet has no experience with cleaning up environmental contamination.	HAZ01
9489	Wildlife will lose acreage in the land exchange. At present, both the proposed mine site and the land proposed for the exchange are good wildlife habitat. After an exchange, the mine site will no longer be good habitat. So, wildlife lose.	WI02
9489	Wildlife will lose acreage in the land exchange. At present, both the proposed mine site and the land proposed for the exchange are good wildlife habitat. After an exchange, the mine site will no longer be good habitat. So, wildlife lose.	WI02
9490	The SDEIS fails to address worker safety. The NorthMet Project site will handle thousands of tons of explosive Hazardous Materials and millions of gallons of hazardous fuels. If explosions or spills occur, mine employees could be exposed to Hazardous Materials during the emergency and during clean up. PolyMet has stated in its 2013 Annual Report that it has no experience with mining. Consequently, for the SDEIS not to address worker safety is irresponsible.	HU04
9490	The SDEIS fails to address worker safety. The NorthMet Project site will handle thousands of tons of explosive Hazardous Materials and millions of gallons of hazardous fuels. If explosions or spills occur, mine employees could be exposed to Hazardous Materials during the emergency and during clean up. PolyMet has stated in its 2013 Annual Report that it has no experience with mining. Consequently, for the SDEIS not to address worker safety is irresponsible.	HU04
9491	The SDEIS fails to address in any of its sections on Cultural Resources or Socioeconomics that the influx of large numbers of temporary workers will lead to increased availability and use of drugs and will lead to trafficking of women. Increased use of drugs and increased trafficking of women have been a great cost to communities in North Dakota where large numbers of temporary workers have responded to the oil drilling boom. Drugs and trafficking will come with the NorthMet Project. Consequently, the SDEIS must estimate the costs to communities near the NorthMet Project of increased availability of drugs (including availability to local youth), increased drug use, and trafficking of women.	SO04
9491	The SDEIS fails to address in any of its sections on Cultural Resources or Socioeconomics that the influx of large numbers of temporary workers will lead to increased availability and use of drugs and will lead to trafficking of women... Drugs and trafficking will come with the NorthMet Project. Consequently, the SDEIS must estimate the costs to communities near the NorthMet Project of increased availability of drugs (including availability to local youth), increased drug use, and trafficking of women.	SO04
9492	The NorthMet Project will destroy 912 acres of high quality wetlands for which mitigating replacement of wetlands is planned in compliance with the Clean Water Act. The scientific consensus is now that wetland restoration is ineffective (National Research Council 2001, Doyle and Shields 2012), does not restore ecological function and integrity of the wetlands that are destroyed, and does not restore ecological function and integrity of the mitigated wetlands. Thus, the approximately 1-1/2 square miles of wetlands destroyed by the NorthMet Project will effectively be lost, as will the ecological services that they now supply to northern Minnesota. This violates the Clean Water Act.	COE03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
9492	The NorthMet Project will destroy 912 acres of high quality wetlands for which mitigating replacement of wetlands is planned in compliance with the Clean Water Act. The scientific consensus is now that wetland restoration is ineffective (National Research Council 2001, Doyle and Shields 2012), does not restore ecological function and integrity of the wetlands that are destroyed, and does not restore ecological function and integrity of the mitigated wetlands. Thus, the approximately 1-1/2 square miles of wetlands destroyed by the NorthMet Project will effectively be lost, as will the ecological services that they now supply to northern Minnesota. This violates the Clean Water Act.	COE03, WET05
9494	None of the listed financial instruments presented on pages 3-138 and 3-139 have been documented, or have a history, to last 200-500 years. Consequently, these financial instruments are not acceptable for the stated use.	FIN08
9494	None of the listed financial instruments presented on pages 3-138 and 3-139 have been documented, or have a history, to last 200-500 years. Consequently, these financial instruments are not acceptable for the stated use.	FIN01, FIN08
9504	Page 5-215 and elsewhere- Contingency mitigation actions are not presented here or anywhere else in the SDEIS, only the conditions that would lead to mitigation actions. The SDEIS does not provide the basic information here needed to evaluate the environmental effects of the proposed NorthMet mine. The public needs to know what the contingency mitigation actions will be. This section needs to be expanded to include the actions that PolyMet will take if contingency mitigation actions are needed. Allowing Poly Met to wait till the permitting process or later to explain these actions is not adequate because PolyMet has no prior experience dealing environmental contamination. If those actions are clearly inadequate but are not presented until the permitting process starts the public will not have the same opportunities to demand adequate actions as it does now.	WR064, WR109
9504	Page 5-215 and elsewhere- Contingency mitigation actions are not presented here or anywhere else in the SDEIS, only the conditions that would lead to mitigation actions. The SDEIS does not provide the basic information here needed to evaluate the environmental effects of the proposed NorthMet mine. The public needs to know what the contingency mitigation actions will be. This section needs to be expanded to include the actions that PolyMet will take if contingency mitigation actions are needed. Allowing Poly Met to wait till the permitting process or later to explain these actions is not adequate because PolyMet has no prior experience dealing environmental contamination. If those actions are clearly inadequate but are not presented until the permitting process starts the public will not have the same opportunities to demand adequate actions as it does now.	PD22, PD24
9518	Pages ES-39, 5-374 and 5-365; Figures 6.2.3-1 and 6.2.3-2- The loss of wildlife habitat is important but even more important is the loss of 2 corridors. Figure 6.2.3-2 shows that roads at the NorthMet Project will close 2 of only 18 habitat corridors that allow wildlife to cross some 80 miles of mining operations.	WI02, WI03
9518	Pages ES-39, 5-374 and 5-365; Figures 6.2.3-1 and 6.2.3-2- The loss of wildlife habitat is important but even more important is the loss of 2 corridors. Figure 6.2.3-2 shows that roads at the NorthMet Project will close 2 of only 18 habitat corridors that allow wildlife to cross some 80 miles of mining operations.	WI02, WI03
9519	Pages ES-39, 5-374 and 5-365; Figures 6.2.3-1 and 6.2.3-2- Lynxes are listed by the US Fish & Wildlife Service under the Endangered Species Act as threatened with extinction and lynxes can, at present, use the 2 corridors that will be closed. Loss of wildlife corridors can cause trouble for lynxes. Lynxes avoid areas with roads (Fuller et al. 2007, Bayne et al. 2008, Alexander 2008, Hoving 2005) and, where traffic volume has been studied, predatory mammals avoid roads with high traffic volume. The roads built for the PolyMet Project will have heavy use with large vehicles, equivalent to high traffic volume. Just because lynxes have been seen crossing roads does not mean that they do not avoid them. When new roads are built, use of adjacent habitat by wildlife is reduced and travel corridors are eliminated. The loss of these 2 corridors can be considered "take" according to the Endangered Species Act and cannot be ignored.	WI01, WI02, WI03, WI11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
9519	Pages ES-39, 5-374 and 5-365; Figures 6.2.3-1 and 6.2.3-2- Lynxes are listed by the US Fish & Wildlife Service under the Endangered Species Act as threatened with extinction and lynxes can, at present, use the 2 corridors that will be closed. Loss of wildlife corridors can cause trouble for lynxes. Lynxes avoid areas with roads (Fuller et al. 2007, Bayne et al. 2008, Alexander 2008, Hoving 2005) and, where traffic volume has been studied, predatory mammals avoid roads with high traffic volume. The roads built for the PolyMet Project will have heavy use with large vehicles, equivalent to high traffic volume. Just because lynxes have been seen crossing roads does not mean that they do not avoid them. When new roads are built, use of adjacent habitat by wildlife is reduced and travel corridors are eliminated. The loss of these 2 corridors can be considered "take" according to the Endangered Species Act and cannot be ignored.	WR044, WR049, WR172, WR173, WR174
9523	Figure 6.2.3-1 does not show the corridor that the text on page 5-374 states that it shows. The figure must be revised to show the corridor.	EDIT01
9523	Figure 6.2.3-1 does not show the corridor that the text on page 5-374 states that it shows. The figure must be revised to show the corridor.	EDIT01
9535	Chapter 3, pages 4,-5, 4-5, 4,-23, Section 5.2.2.2.1, Figures 5.2.2A and 5.2.2.6- The SDEIS lacks documentation of existing ground water flow and, consequently, the public has no way to understand or to evaluate changes to ground water flow.... The SDEIS does not explain MODFLOW and does not explain how ground water flow was modeled. Consequently, the public can not evaluate the model. The SDEIS must follow standard practices for professional publications, which is to present and to explain all models used or to justify their dependability by demonstrating that they have been used extensively with consistent, accurate results.	WR201
9535	Chapter 3, pages 4,-5, 4-5, 4,-23, Section 5.2.2.2.1, Figures 5.2.2A and 5.2.2.6- The SDEIS lacks documentation of existing ground water flow and, consequently, the public has no way to understand or to evaluate changes to ground water flow.	WR201
9539	Ground water flow is assumed by the SDEIS to follow ground water elevations measured at 23 wells but the SDEIS provides no evidence that ground water flow actually does follow those elevation contours. Ground water flow does not necessarily follow watersheds (Jarosiewicz and Witek 2014) and the basics of even surface water flows, let alone groundwater flows, are not well understood (McDonnell2013). This section of the SDEIS is clearly inadequate and must be redone and expanded to explain the models.	WR058, WR071
9541	Ground water flow is assumed by the SDEIS to follow ground water elevations measured at 23 wells but the SDEIS provides no evidence that ground water flow actually does follow those elevation contours. round water flow does not necessarily follow watersheds (Jarosiewicz and Witek 2014) and the basics of even surface water flows, let alone groundwater flows, are not well understood (McDonnell2013). This section of the SDEIS is clearly inadequate and must be redone and expanded to explain the models. The ground water flow shown in Figures 5.2.2,-4 and 5.2.2,-6 does not follow the ground water contours that are mapped on the figure and is misleading. Either the model does not follow the assumptions used to build it, or the figure does not show accurately the model output. Either way, the SDEIS does not provide adequate, appropriate and accurate information and cannot be used to evaluate the environmental effects of the proposed NorthMet mine. The modeling behind these figures must be redone and the figures must be redrawn to match the output of the models.	WR041, WR058, WR167, WR103, WR195
9541	The ground water flow shown in Figures 5.2.2,-4 and 5.2.2,-6 does not follow the ground water contours that are mapped on the figure and is misleading. Either the model does not follow the assumptions used to build it, or the figure does not show accurately the model output. Either way, the SDEIS does not provide adequate, appropriate and accurate information and cannot be used to evaluate the environmental effects of the proposed NorthMet mine. The modeling behind these figures must be redone and the figures must be redrawn to match the output of the models.	WR058, WR167

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
9542	The SDEIS states that the 1st priority for ground water is its use for domestic water but the SDEIS has several problems with this priority item. First, the SDEIS does not explain the models it used to predict ground water flow. Second, ground water flow can be independent of surface water flow and can flow in different directions from surface water. Third, the SDEIS presents information in figures that violate assumptions of the models and assumptions used to build the figures. Finally, contaminated ground water will not necessarily be stopped or directed by surface water drainages. Consequently, the material about ground water in the SDEIS untrustworthy at best and could endanger humans, or even cause death, if used by PolyMet to make decisions.	WR086, WR105
9542	The SDEIS states that the 1st priority for ground water is its use for domestic water but the SDEIS has several problems with this priority item. First, the SDEIS does not explain the models it used to predict ground water flow. Second, ground water flow can be independent of surface water flow and can flow in different directions from surface water. Third, the SDEIS presents information in figures that violate assumptions of the models and assumptions used to build the figures. Finally, contaminated ground water will not necessarily be stopped or directed by surface water drainages. Consequently, the material about ground water in the SDEIS untrustworthy at best and could endanger humans, or even cause death, if used by PolyMet to make decisions.	WR086, WR105
9543	Pages ES-39, 4-61, 4-66, 4-74, 5-7, 5-8; Tables 4.2.2.7 and 4.2.2.8- River and stream flows that are lower than the average, present seasonal flows but still within the annual range can have huge impacts on animals and plants that depend on high water during certain seasons. Amphibians require high water levels in spring for reproduction, as do fish that spawn in the spring...Spring ephemeral wetland plant communities require high water levels. Spring flows reduced to the low flows of autumn and winter will be a disaster for amphibians [and] wetland plant communities...and will deny amphibians and spring plants adapted to wetlands of their required water levels for reproduction and growth.	WI06, VEG07, WR037, WR189
9543	Pages ES-39, 4-61, 4-66, 4-74, 5-7, 5-8; Tables 4.2.2.7 and 4.2.2.8- River and stream flows that are lower than the average, present seasonal flows but still within the annual range can have huge impacts on animals and plants that depend on high water during certain seasons. Amphibians require high water levels in spring for reproduction, as do fish that spawn in the spring...Spring flows reduced to the low flows of autumn and winter will be a disaster for amphibians...and will deny amphibians and spring plants adapted to wetlands of their required water levels for reproduction and growth.	VEG07, WI06
9552	The SDEIS does not explain the models used to predict stream and river flows in the appropriate tables or in the text. Consequently, the public is not able to evaluate the models and their assumptions. To provide adequate information for the public, the SDEIS must follow standard practices for professional publications, which is to present and to explain all models used or to justify their dependability by demonstrating that they have been used extensively with consistent, accurate results.	WR189
9552	The SDEIS does not explain the models used to predict stream and river flows in the appropriate tables or in the text. Consequently, the public is not able to evaluate the models and their assumptions. To provide adequate information for the public, the SDEIS must follow standard practices for professional publications, which is to present and to explain all models used or to justify their dependability by demonstrating that they have been used extensively with consistent, accurate results.	WR189

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
9558	The tables demonstrate clearly that the models of stream and river flow are grossly in error. For example, the 30 day maximum flow for a stream or river must, by definition, exceed the average flows of all 30 day periods, otherwise it would not be the maximum flow. Yet, the mean 30 day maximum flow for the Partridge River predicted by the model is less than the actual mean flow for April, showing that the model is simply wrong and should not be used. Similarly, the 1-month maximum flow must be less than the 1-time maximum pulse, the 1-month minimum flow must be less than the 1-month mean flow, and the 1-month minimum flow must be greater than the 1-time minimum flow. Yet, the flows predicted by the model and shown in the tables violate these requirements. Thus, these tables demonstrate that the model used to predict stream and river flows cannot mimic the natural system that it is supposed to model. If the model cannot replicate the system as it is, it cannot be used to predict water flow after mining starts. Thus, the modeling of water flow must be completely redone.	WR003, WR189
9558	The tables demonstrate clearly that the models of stream and river flow are grossly in error. For example, the 30 day maximum flow for a stream or river must, by definition, exceed the average flows of all 30 day periods, otherwise it would not be the maximum flow. Yet, the mean 30 day maximum flow for the Partridge River predicted by the model is less than the actual mean flow for April, showing that the model is simply wrong and should not be used. Similarly, the 1-month maximum flow must be less than the 1-time maximum pulse, the 1-month minimum flow must be less than the 1-month mean flow, and the 1-month minimum flow must be greater than the 1-time minimum flow. Yet, the flows predicted by the model and shown in the tables violate these requirements. Thus, these tables demonstrate that the model used to predict stream and river flows cannot mimic the natural system that it is supposed to model. If the model cannot replicate the system as it is, it cannot be used to predict water flow after mining starts. Thus, the modeling of water flow must be completely redone.	WR003, WR189
9572	On page 4-74, the last sentence states that water samples "generally met" standards. Had water samples always met the standard, the SDEIS would have stated so. Consequently, an intelligent person must deduce that at least some samples, if not many, did not meet the standards. Not meeting the standards is not acceptable.	WR071
9572	On page 4-74, the last sentence states that water samples "generally met" standards. Had water samples always met the standard, the SDEIS would have stated so. Consequently, an intelligent person must deduce that at least some samples, if not many, did not meet the standards. Not meeting the standards is not acceptable.	WR071
9573	In addition, Minnesota law prohibits lowering water quality below the original level even if the original level exceeds the standard for modified or polluted waters. The public must be shown the present levels to be able to evaluate the projected effects of the NorthMet Project. Aluminum and lead levels are projected to exceed water quality limits. This outcome is not acceptable. The SDEIS should show the public how PolyMet proposes to avoid exceeding these water quality limits or the NorthMet Project should not be permitted.	PER33, WR064, WR109
9573	In addition, Minnesota law prohibits lowering water quality below the original level even if the original level exceeds the standard for modified or polluted waters. The public must be shown the present levels to be able to evaluate the projected effects of the NorthMet Project. Aluminum and lead levels are projected to exceed water quality limits. This outcome is not acceptable. The SDEIS should show the public how PolyMet proposes to avoid exceeding these water quality limits or the NorthMet Project should not be permitted.	WR064, WR109
9574	Figures 5.2.2-18, 19 and 41a of the SDEIS show PSO, contradicting the text.	EDIT01
9574	Figures 5.2.2-18, 19 and 41a of the SDEIS show PSO, contradicting the text.	EDIT01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
9578	Table 5.2.13-1 of the SDEIS shows that deliveries of explosive and dangerous materials (just a portion of the Hazardous Materials) to the NorthMet Project site are projected to be about 5000 tons per year. The SDEIS states that the probability of a spill of some serious Hazardous Material is 12.5 %. PAX, one of the most hazardous materials to be delivered to the site, constitutes about 20% of the serious Hazardous Material to be delivered. PAX is spontaneously combustible and produces H2S, hydrogen sulfide, which is toxic. The SDEIS states that the probability of a spill of PAX is 2.5%. Deliveries of diesel fuel will total over 6 million gallons per year. The SDEIS states that the probability of a spill of diesel fuel is 40%. Thus, the total probability of a spill of diesel or of PAX or of some other Hazardous Material is about 50% or possibly greater. Given that PolyMet has no experience in handling serious spills of Hazardous Materials, the SDEIS must explain how PolyMer proposed to deal with the emergency of a serious spill and how PolyMet will clean up these serious spills if they occur. Otherwise, the public and future regulators cannot evaluate their proposed handling of spills.	HAZ01
9578	Table 5.2.13-1 of the SDEIS shows that deliveries of explosive and dangerous materials (just a portion of the Hazardous Materials) to the NorthMet Project site are projected to be about 5000 tons per year. The SDEIS states that the probability of a spill of some serious Hazardous Material is 12.5 %. PAX, one of the most hazardous materials to be delivered to the site, constitutes about 20% of the serious Hazardous Material to be delivered. PAX is spontaneously combustible and produces H2S, hydrogen sulfide, which is toxic. The SDEIS states that the probability of a spill of PAX is 2.5%. Deliveries of diesel fuel will total over 6 million gallons per year. The SDEIS states that the probability of a spill of diesel fuel is 40%. Thus, the total probability of a spill of diesel or of PAX or of some other Hazardous Material is about 50% or possibly greater. Given that PolyMet has no experience in handling serious spills of Hazardous Materials, the SDEIS must explain how PolyMer proposed to deal with the emergency of a serious spill and how PolyMet will clean up these serious spills if they occur. Otherwise, the public and future regulators cannot evaluate their proposed handling of spills.	HAZ01
9585	MDO #5: The response of the co-lead agencies does not address the socioeconomic and cultural costs of temporary employees, which is the topic of this MDO.	SO04
9585	MDO #5: The response of the co-lead agencies does not address the socioeconomic and cultural costs of temporary employees, which is the topic of this MDO.	SO04
9589	In many places, the SDEIS makes statements without providing adequate documentation. In other places, the SDEIS provides enough information to show that the models or evaluations used are inadequate or simply wrong. And in some places the SDEIS makes statements that contradict known ecological science. My conclusion is that the SDEIS is grossly inadequate. The SDEIS requires massive revising before it can be used to evaluate the potential Environmental Impacts of the NorthMet Project. Thus, it cannot logically be titled an "Ecological Impast Statement". It will be grossly irresponsible not to require revision of the SDEIS and not to have the revised SDEIS available for public comment before permitting is considered.	NEPA09
9589	In many places, the SDEIS makes statements without providing adequate documentation. In other places, the SDEIS provides enough information to show that the models or evaluations used are inadequate or simply wrong. And in some places the SDEIS makes statements that contradict known ecological science. My conclusion is that the SDEIS is grossly inadequate. The SDEIS requires massive revising before it can be used to evaluate the potential Environmental Impacts of the NorthMet Project. Thus, it cannot logically be titled an "Ecological Impast Statement". It will be grossly irresponsible not to require revision of the SDEIS and not to have the revised SDEIS available for public comment before permitting is considered.	NEPA09
18606	At present, both the proposed mine site and the land proposed for the exchange are good wildlife habitat. After an exchange, the mine site will no longer be good habitat. So, wildlife lose.	WI02

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<b>Sender Name (Submission ID)</b>	Roger A Powell (42879)	
18629	Aluminum and lead levels are projected to exceed water quality limits. This outcome is not acceptable. The SDEIS should show the public how PolyMet proposes to avoid exceeding these water quality limits or the NorthMet Project should not be permitted.	WR064
18631	MDO # 1, 7, 13, 14: The responses of the co-lead agencies to these MDOs are stated clearly to be based on "belief" and also appear to be based on misunderstandings of biology, limnology and model results. An EIS is not to be based on "belief" but on the best science and technology. Our best knowledge arises from what science and technology have demonstrated and does not arise from "belief". The responses of the co-lead agencies must be revised to be based on established science and technology, including appropriate citations of appropriate professional publications.	NEPA12, NEPA14
<b>Sender Name (Submission ID)</b>	Roger and Maxene Linehan (54662)	
17911	This highly polluting type of mining has NOT been done anywhere in the world without severe consequences to the environment. Why on earth should we try out this unproven mining technology here in the fragile and pristinelakes and forest lands of Minnesota?	PD26
17912	The health of the area's human and wild inhabitants, and thousands of established tourism-based jobs would be traded away for hundreds of temporary local mining jobs. ... Our mined metal resources will mainly enrich a foreign corporation, while residents of the Lake Superior watershed are likely to experience degradation and loss of water quality, as well as the loss of the rare, irreplaceable wild rice wetlands of the Ojibwa people.	SO01
17913	Important forest habitat and wetlands will be lost for hundreds of years or more, and with them the wildlife that has survived on our dwindling and scattered habitat and corridors. Moose habitat loss would be especially tragic, as would the wetlands of Minnesota's also-dwindling duck populations.	WI01, WI02
17914	These wild places and their inhabitants have evolved for tens of thousands of years since the glaciers; whole ecosystems like this can't be replaced simply by planting trees or digging ponds, especially if the chemicals (including sulfuric acid) dredged up by mining will drastically alter the land and its living things.	WILD02
17915	Please listen to doctors, nurses and other medical experts who foresee serious and fatal health consequences from this pollution, and are speaking out.	HU03
17917	the SDEIS failed to include a cost/benefit analysis and specific provisions concerning amounts and sources of financial assurance. Accidents and failures are distinct possibilities during that time span. I don't know of any company that has that long a track record. If Polymet will not or cannot provide money up front to finance this pollution abatement, and/or if the company goes bankrupt or ceases to exist, we Minnesota taxpayers will be stuck with the clean-up tab, quite possibly for centuries. Add to that the fact that pre-financing cleanup is complicated by the changes our monetary system and values are likely to undergo in the next 500 years!	FIN01, FIN10
17918	The huge two-volume SDEIS is far too long for working people to digest in the short time allotted for comment. I urge you to change the comment deadline to allow more people to respond to this important, far-reaching issue.	NEPA07
17920	errors have been detected such as underestimations of the actual river rate of flow, and the questionable plan for wall barriers to be built down to bedrock to contain tailings.	WR003, WR019
17921	A new, alternative industry could provide jobs as well as precious metals for modern technology, such as recycling plants for old cell phones and other tech waste so that those items don't end up wasted and polluting the ground in landfills around the world.	NEPA06

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Roger B Carlson (10312)		
496	Keep the Range unique and safe and healthy and prosperous, Minnesota too. Go forward with the proposed Polymet Mine	SO10
<b>Sender Name (Submission ID)</b> Roger Bergh (11529)		
2481	Why hold up a project that has met current environmental rules. We need this mine for jobs and income. Holding this project up for some wild rice is ridiculous. The draft impact statement has met all requirements.	SO10
2481	Why hold up a project that has met current environmental rules. We need this mine for jobs and income. Holding this project up for some wild rice is ridiculous. The draft impact statement has met all requirements.	SO10
<b>Sender Name (Submission ID)</b> Roger Clemence (57956)		
19841	The contamination will last forever (if the past tells us anything).	GEN01
<b>Sender Name (Submission ID)</b> Roger Dahlin (47181)		
11632	As a harvester of wild rice for more than thirty years, I have personally observed the sensitivity of that species to changes in water conditions. Research has demonstrated that wild rice is negatively affected by even mildly elevated levels of sulfide in the waters in which it grows.	WR156
11635	I am not satisfied by assertions that water polluted by the proposed mining will be treated to meet strict quality standards. Such assurances mean nothing when something goes wrong and contamination spreads. Such things do happen. I'm not willing, without much more convincing evidence that any such accident will be immediately contained and its effects negated	WR128, WR144
13407	As a harvester of wild rice for more than thirty years, I have personally observed the sensitivity of that species to changes in water conditions. Research has demonstrated that wild rice is negatively affected by even mildly elevated levels of sulfide in the waters in which it grows.	VEG04, WR156
13408	The region surrounding the proposed PolyMet mine has many lakes and streams in which wild rice forms the basis for rich aquatic ecosystems and provides an important food source for many waterfowl, including swans, geese, and several species of ducks.	VEG04, WI01
13409	Native Americans living in areas where wild rice grows have for many centuries harvested and eaten it. The harvesting and processing of wild rice has long been integral to the hunting/gathering culture of northern woodlands tribes. The potential for damage to this natural crop represents a threat to both native cultures and natural harvest traditions of many others.	CR01
16300	The region surrounding the proposed PolyMet mine has many lakes and streams in which wild rice forms the basis for rich aquatic ecosystems and provides an important food source for many waterfowl, including swans, geese, and several species of ducks. Significant damage to stands of wild rice in this area would profoundly impoverish habitat for many other species, constituting a tragic diminution of biological diversity.	VEG04, WI01, WI02, WR157, WR158
16302	Native Americans living in areas where wild rice grows have for many centuries harvested and eaten it... The potential for damage to this natural crop represents a threat to both native cultures and natural harvest traditions of many others.	CR01
<b>Sender Name (Submission ID)</b> Roger F Heegaard (54793)		
18078	Our State, nation and world must have learned by now, how fragile our water, air and forests are. We must protect them from any project, such as this, that must surely expose them to degradation. We should also understand, full well, that the promises made by those who would benefit from the mine cannot be relied upon over time. No one can really understand and protect us from the risks.	PER02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Roger Garton (21699)		
13956	Not only does the proposed PolyMet mining project present serious environmental risks to the ground water and overall ecosystems of the northeast part of Minnesota, this project will increase the amount of pollution that is added to our atmosphere through coal generated electric consumption	WI13
13957	PolyMet should be required to present a means for offsetting all of the additional coal generated electricity that they will consume. This means could be through contribution to the Conservation Improvement Program (CIP) fund, or through direct deployment of renewable energy generation such as solar or wind power.	PD39
13958	Letting a small few compromise the natural beauty and ecosystems of our state for their personal profits and leaving the tax payers holding the bill for the cleanup efforts is not an option.	SO01
<b>Sender Name (Submission ID)</b> Roger Hiller (40825)		
14002	Please protect our wilderness area and our waters. We have heard before, the promises of containment, and we know from experience what happens.	PD01
<b>Sender Name (Submission ID)</b> Roger Johnston (16098)		
9654	Allowing PolyMet the right to mine in the Boundary Waters area is the ultimate sellout of a irreplaceable natural resource for a fleeting economic gain. We have a beautiful natural resource that cannot be replaced at ANY PRICE.	WILD02
<b>Sender Name (Submission ID)</b> Roger Klisch (15352)		
565	We cannot put our water resources at risk, as this mining operation would surely do.	WR115
<b>Sender Name (Submission ID)</b> Roger Meyer (47301)		
11396	The extraction of resources will cause environmental damage during extraction and leave the citizens of Minnesota monitoring and/or cleaning up the site for centuries after operations cease.	WR037, WR115, WR195
11399	The short-term economic gain from this project does not come close to off-setting the short-term environmental impact and the long-term risk.	SO01
<b>Sender Name (Submission ID)</b> Roger Skraba (18311)		
4178	The number is 1.3 nanograms. And one of the concerns I have about that is -- again former mayor -- we have a wastewater treatment plant and we have to be concerned about our mercury that we put into the water.	MERC15
4180	And I'm always kind of wondering about the [mercury] in the air. How do we measure that it comes from foreign countries or from ourselves? And how does that go into this EIS?	AIR06, MERC08
<b>Sender Name (Submission ID)</b> Roger Thoma (42046)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Roger Thoma (42046)		
2074	This pervasive [mercury pollution] condition [in Ohio] is the result of air deposition derived from air discharges in states west of Ohio, such as Minnesota. It will not be possible for Ohio to meet the requirements of the USEPA as long as air born mercury is transported to our state. As long as such conditions continue Ohio will be in Non Compliance for all of its waters. This is, as you know, a violation of law.	AIR06
2075	It is my understanding from a review of available information that the state of Minnesota has not yet established compliance with its mercury discharge regulations and that many of its mining operations are exceeding their permit limits for mercury. ... Minnesota is contributing to the damage of Ohio's environment and disenfranchisement of its people to clean waters and edible fish as required by the Clean Water Act and its legal permutations.	MERC01
2076	The activities of Minnesota, by failing to enforce its own laws, is a clear violation of the objectives put forth by the IJC [International Joint Commission]. Minnesota is a member of the IJC and has agreed to cooperate with the other members in achieving their goals.	PER06
2077	I am requesting the state of Minnesota place a moratorium on all future permits requested in your state until full compliance with mercury discharge regulations is achieved.	PER25, PER35
<b>Sender Name (Submission ID)</b> Roma Leuty (7207)		
10614	The PolyMet sulfide mine plan would end up like the Reserve Mining debacle that we had to deal with. It took years to stop the dumping of tailings in Lake Superior!	WR023
<b>Sender Name (Submission ID)</b> Ron Bergh (7346)		
691	The project has great merit and I feel the changes to the environment will not be harmful to the effect as to stop the project from proceeding.	PD28
736	I think the study and plans presented covered the environmental concerns.	NEPA16
738	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
739	A study should be made about the costs of all this delay.	NEPA12
742	I think the study and plans presented adequately addressed the environmental concerns.	NEPA16
743	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
752	I think the study and plans presented covered the environmental concerns.	NEPA16
754	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
761	I think the study and plans presented covered the environmental concerns.	NEPA16
762	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
765	I think the study and plans presented covered the environmental concerns.	NEPA16

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ron Bergh (7346)		
767	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
770	I think the study and plans presented covered the environmental concerns.	NEPA16
771	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
776	I think the study and plans presented covered the environmental concerns.	NEPA16
777	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
809	I think the study and plans presented covered the environmental concerns.	NEPA16
810	I hope the permits are issued soon so the people of MN can start reaping the benefits.	PER34
13516	I think Polymet['s]...thoroughness is apparent, even if a minute amount of harvested wild rice is affected.	WR161
13516	I think Polymet['s]...thoroughness is apparent, even if a minute amount of harvested wild rice is affected.	WR161
15094	Time and money is wasted with this long delay in allowing permits.	PER34
<b>Sender Name (Submission ID)</b> Ron Brodigan (39798)		
6985	The plan misrepresents or misunderstands the amount of wild rice waters within the St. Louis River/Lake Superior Watershed. MDNR should insert actual steps in a new DEIS to better identify and preserve wild rice waters in northeastern Minnesota. ... 100-mile swamp [will] undoubtedly will be affected via underground water exchange by a PolyMet open-pit mine and associated infrastructure.	VEG04
6990	The proposed precious metals mine and related infrastructure would possibly destroy moose habitat. With an already seriously declining population of these animals, there should be more analysis of the potential mine's effects on this remaining population in the SDEIS.	WI01, WI02
7002	It is known that some of the minerals to be mined have similar properties to asbestos and other harmful mineral fibers and can be causal to lung afflictions such as pleural plaque, pleural effusion, asbestosis, silicosis, lung cancer and mesothelioma...There needs to be serious and considered analysis of health effects to the human population for generous distances from the proposed industrial area.	HU05
7066	The proposed land exchange (for the sole benefit of PolyMet) between the mining company and the U.S Forest Service is not the kind of swap usually done by the latter agency. Forest Service rules may actually prohibit such a trade. This represents a one-sided giveaway of valuable wetland and upland forest that can never be replaced. The U.S. Forest Service must not forget they are giving to a corporation, parts of the Superior National Forest. More analysis and justification of this proposal by the Forest Service should be included in the supplementary DEIS.	LAN02
7092	There seems to be no plan in theory or in practice for remediation of future extraordinary weather or geophysical events that could release contaminants into air, streams, lakes and subsurface waters. This should comprise an entire new section in the revised DEIS.	PD22
7103	The DEIS contains inadequate data on existing water and air pollution throughout PolyMet's area as a direct result of 100-plus years of iron and taconite extraction and processing. PolyMet's potential activities would exacerbate existing pollution on a magnified scale.	AIR11

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ron Brodigan (39798)		
7105	This DEIS considers no alternatives such as underground mining on the same site. Alternatives and their relative viability must be included in the SDEIS.	ALT06
7110	Clarify in a new DEIS exactly how much PolyMet or their parent company would pay in various kinds of taxes should the enterprise be permitted by the state. Examine and confirm the accuracy of (questionable) tax estimates in the existing DEIS.	SO04
7113	PolyMet’s proposed project is very close to the Rainy Lake/Lake of the Woods – St. Louis River/Lake Superior watershed divide. Since little is known about deep sub-surface movements of ground water and fracture characteristics of the underlying geology, an analysis of known data in this regard should be included in the Supplementary DEIS.	WR007, WR010, WR012, WR056, WR061, WR071, WR087, WR099, WR169
7116	Much of Appendix C, response of Tribal Governments, should be answered in a more thoughtful and less patronizing way and included in the new EIS. The responses of the sponsoring agencies already set out in the DEIS are inadequate and wide of the mark.	NEPA12
7133	Recognize Glencore Xstrata of Switzerland as the actual company behind the “shell corporation,” PolyMet, which has never built or operated a mine of any kind and has little access to the necessary funds to even develop or clean up the former taconite infrastructure and land they now possess.	FIN02, FIN11
7136	If Glencore, the legal parent of this project, is left out of the new DEIS equation, very little in the Supplementary DEIS will have substance or credibility.	PER02
7138	When Glencore and PolyMet finish extracting the ores and sending the precious metals to China (as already contracted for), or when environmental troubles begin, it may find a way to get beyond the reach of Minnesota or the Federal Government for any damages. The joke, then, is on us. But the potential of decades or even centuries of (largely ineffectual) cleanup is not to laugh at.	FIN01, FIN04
14261	We own operate several environment and natural resource-dependent family businesses in an area that will be affected by noise, dust and water pollution if a mine is built nearby.	LU06
<b>Sender Name (Submission ID)</b> Ron Deike (12056)		
47	This project (PolyMet) should not go forward because the state and the taxpayers will be stuck with the clean-up bills.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Ron Holch (39851)		
6968	this proposed mining area sits at the beginning of three major continental watersheds:Mississippi drainage to the Gulf, St. Laurence drainage to the Atlantic, Hudson Bay drainage to the Arctic Ocean. Sulfides that leave the proposed mine can pollute the lion's share of our nation and Canada with acid waters and leaching heavy metals for 500 years.	WR115
<b>Sender Name (Submission ID)</b> Ron Lawrenz (18224)		
2186	"Our only gauge for the future is studying the past." That reflection is of little comfort to the context of our current discussions, and I'm unaware, as many have pointed out, there's been a sulfide mining effort anywhere else that has not polluted the environment.	WR023
2187	I'm opposed to this project based on potential impacts, and I suggest that we not approve this EIS.	NEPA09

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Ron Lawrenz (18224)	
12188	I would argue that we need to focus on tangible issues; selling, trading land for fragments of lands in 900 places, trading wetlands, rather than unique ecosystems.	WET14
12914	...the SDEIS ignores the most significant cumulative impact, that is, the development of other copper/nickel mines in the region, by categorizing the development of additional cooper-nickel mines as "speculative".	CU02
12921	By definition, cumulative impact means, in part, "the impact on the environment that results from incremental effects of the project in addition to other past, present, and reasonably foreseeable future projects regardless of what person undertakes the other projects". The SDEIS dismisses the cumulative effects/impacts of other potential non-ferrous mine developments by subjectively listing them as "speculative".	CU02
12926	I argue that the future development of additional non-ferrous mines is not "speculative", but rather reasonably foreseeable and thus subject to evaluation in the SDEIS.	CU02
12945	...the State, including the MNDNR, specifically forecasted that non-ferrous mining in notheastern Minnesota was reasonably forseable to the point that it was willing to invest \$4.3 million (in1979 dollars) to study the regional impacts of said mining (3).	CU02
12952	...the MNDNR, as an RGU for the proposed Northmet/PolyMet project, cannot argue that the development of other non-ferrous mines is "speculative", and should be compelled under EQB guidelines to conduct a comprehensive analysis of the cumulative potential effects of other non-ferrous mines in the SDEIS.	CU02
12953	The fact that the Environmental Quality Board: Regional Copper-Nickel Study (1979) was not used as a reference in the development of the SDEIS seems to be a serious oversight of the SDEIS...In part, the study concludes that there will be cumulative impacts to various environmental components (i.e. hydrology, among others) if non-ferrous mining were to move forward	CU03
12956	The Attorney General's Office (2006) acknowledges that the interpretation of cumulative impacts under the EQB rules "has been the subject of a fair amount of litigation'. The majority of cases cited in their review found that cumulative effects/impacts of like projects needed to be considered and included in the respective EISs.	CU03
12964	while the wetlands that are to be restored will be re-vegetated, those efforts won't completely match the biological community of the wetlands that will be lost. It may take decades, or more for the restored wetlands to recolonize and aquilibrate with other biotic components (bacteria, fungi, invertebrates, etc.), and they are not likely to be the same as those that were lost.	WET05
12965	...the more southerly location of the mitigation wetlands will make [species such as the Lynx and the Moose] more vulnerable to the impacts of climate change and create an even larger differential in habitat types and aquatic communities from the current condition. The SDEIS does not take this disparity into consideration...	WET04, WI02
12970	..there is no substantive discussion concerning the removal of the forest plant community and the peatland/bog ecosystems as carbon sinks. The SDEIS needs to more extensively explore these issues to be a complete document.	VEG03, WET13
12973	mine development will create disturbances that could facilitate the distribution and abundance of invasive species...(for example: earthworms) in the heart of a large forested area...The role of site disturbance and the cumulative impact of this project, as well as other reasonably foreseeable projects, on the introduction of invasive and exotic species need to be thoroughly discussed and mitigated in the SDEIS.	VEG05
12975	[The SDEIS] combined the percentage loss of rare or endangered plant species so that the overall impact appeared to be more reasonable (1% decline in statewide populations) when the statewide decline for the populations of some species was much greater, and potentially critical...The concern must be discussed at the species level since the impact is at the species level.	VEG01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ron Lawrenz (18224)		
12976	...the SDEIS couples ecological references to land and wetland exchange areas being in the 1854 Ceded Territory is misguided when discussing ecological impacts or variables. The 1854 Ceded Territory designation is socio-political...Land and wetland exchanges should be defined within established ecoregions or biological communities in which they occur.	LAN05, WET14
12982	...the majority of the lands offered as mitigation and replacement within the National Forest are not protected from future mining activities because the mineral rights will be held by private entities and not the U.S. Forest Service or the State	LAN04
14945	...there is no discussion that the wetland exchange areas proposed are not equivalent since they are based on vegetative typing as surrogates for, or in lieu of, other ecological factors such as water chemistry and invertebrate communities...the primary replacement wetlands would be located well to the south of the distributional ranges of a number of rare or unusual aquatic invertebrate species most likely to be found on the proposed mine site.	WET14, WET15
14948	...the wetlands that are proposed for mitigation...are nearly 100 miles southwest of the proposed project site...[and] well outside the known ranges of organisms that are most likely found at the project site. For example, ...the distributional ranges of the Zigzag Darner dragonfly ( <i>Aeshna sitchensis</i> ) and the Lake Emerald dragonfly ( <i>Somatochlora cingulata</i> ) include the habitats and location of the proposed mine, but do not extend down to the proposed mitigation wetlands. Both of these dragonflies are listed as rare for the State (Mead 2009)	AQ18, WET03, WET05
14951	carbon emissions from the proposed facility were not fully analyzed for their overall contribution and impact on global climate change...the SDEIS only commits about one page to the issue of carbon emissions and global climate change	AIR01
<b>Sender Name (Submission ID)</b> Ron McGriff (13950)		
1731	I can not see any amount of "protective" or "repair" dollars that will be truly effective for an operation whose processes and waste have the potential to impact nature for 200 to 300 years.	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Ron Miles (38457)		
9811	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01
13610	[The proposed Project] exists in conspicuous, diametric opposition to the expressed wishes of most Minnesotans and Americans, except for those profiteering industry corporados without environmental ethics and vision.	SO02
<b>Sender Name (Submission ID)</b> RON PETERSON (4013)		
819	this plan will...Destroy thousands of acres of beautiful, sustainable forest – forever!	VEG03
822	this plan will...Create a relative few, hundreds, of direct jobs for Minnesotans which mostly will be the lower end of the pay spectrum for only a few decades. The highest end jobs come from outside the state and country.	SO06
823	this plan will... Trade the value of Minnesotans or in other words OUR LAND, and mineral wealth of precious metals for a few decades of jobs while exporting the profits to foreign companies.	SO06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> RON PETERSON (4013)		
824	Billions of dollars, not to be under estimated, and State Expense of time for: A. Hearings and reviews B. Legal Work C. Monitoring, testing and Policing of the sites D. Cleanup and treatment of downstream and underground water from pollution and the cost of damage to fisheries E. State invested cost for road upgrades and maintenance F. Inevitable Litigation G. Loss of recreational attraction and jobs for the tourist industry H. The future loss of jobs and recreation of a local recession when production ends I. The greatest “ The theft of what we could have left for our grandchildren to enjoy and for their quality of life”	FIN05
832	For this we get a few hundred jobs over a short few decades - and endless damage.	SO01
<b>Sender Name (Submission ID)</b> Ron Shoden (42853)		
8577	If the federal & state agencies are satisfied that PolyMet has complied or have exceeded with state & federal regulations pertaining to the EIS, and give their blessing, there is no reason why the Polymet Project should not proceed and begin the permitting process.	PER34
8578	PolyMet has worked very hard on the second EIS draft and I believe the draft is totally compliant. PolyMet employees and their investors have shown great patience over these many years and should be commended.	NEPA16
8580	Obviously, the economic impact PolyMet will have on local, state and even national levels will be tremendous and much needed as we continue to climb out of this recession.	SO10
8581	Finally, I know and trust Polymet officials; if they believed the project would have a negative impact on the environment, they would not proceed.	PD28
18305	If the federal & state agencies are satisfied that PolyMet has complied or have exceeded with state & federal regulations pertaining to the EIS, and give their blessing, there is no reason why the Polymet Project should not proceed and begin the permitting process.	PER34
18306	PolyMet has worked very hard on the second EIS draft and I believe the draft is totally compliant. PolyMet employees and their investors have shown great patience over these many years and should be commended.	NEPA16
18307	the economic impact PolyMet will have on local, state and even national levels will be tremendous and much needed as we continue to climb out of this recession.	SO10
18308	I know and trust Polymet officials; if they believed the project would have a negative impact on the environment, they would not proceed. Several officials have lived in the area their entire lives and raised their families.	PD28
<b>Sender Name (Submission ID)</b> Ron Sternal (18222)		
2184	The public discussions over the last few weeks have established if the mine is built, there will be 360 jobs for 20 years, plus an uncertain, but large amount of land, air and water pollution that the SDEIS is supposed to quantify.	AIR11, WR115

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Ron Sternal (18222)		
12185	. Can we trust PolyMet. But it was not PolyMet we need to trust. It is Glencore Xstrata. Glencore Xstrata is the primary owner of PolyMet and as the research firm, Stifel Nicolaus states, Glencore Xstrata will buy the rest of PolyMet when all the permits are in place. So who is Glencore Xstrata and can they be trusted. Glencore Xstrata is a Swiss-based firm known for its ruthlessness. This is the fourth largest mining company in the world. It controls 50 percent of the world's copper through its ownership of 100 mines around the world and its commodities trading operations. Glencore Xstrata's CEO is Ivan Glasenberg, who prides himself on extracting maximum profits from its overseas holdings. Under his leadership, Glencore Xstrata has run a long list of labor and environmental abuses, including 58 mining fatalities between 2008 and 2010, over twice the number reported by any other mining company over that period. Just in 2012, the environmental and labor record includes dumping raw acid into waterways in the Congo; Failure to provide a vapor barrier to prevent acid mist from descending on 3,000 people in Zambia; Utilizing child labor as young as 10 years old at mines in the Congo; and causing environmental damage at the McArthur River Mine in Australia.	PER02
<b>Sender Name (Submission ID)</b> Ron Wetzell (18261)		
13713	The answer is that it is immoral and unethical of us to encroach upon, to mortgage, to pilfer our children's rightful heritage to a clean and healthy environment for our benefit of a few hundred jobs for 20 some years. It is flat out wrong.	SO01
13714	Seriously, what entity do we know that we can trust for 200 years? For 500 years? The answer regarding this project is not complex. It is pretty simple. The pinch is that it calls us to have courage to walk the talk of our deepest failures.	PD01
19887	...it is immoral and unethical of us to encroach upon, to mortgage, to pilfer, our children's rightful heritage to a clean and healthy environment for our benefit of a few hundred jobs for 20 some years....Seriously, what entity do we know that we can trust for 200 years, for 500 years?	SO01
<b>Sender Name (Submission ID)</b> Ronald Iannelli (38486)		
13596	I feel the MPCA, DNR and the State have enough safeguards in place to allow this project to go forward	PER34
<b>Sender Name (Submission ID)</b> Ronald Palosaari (2738)		
12283	Until Polymet can show us places where this type of mining has not resulted in seriously polluted water and land, MN SHOULD NOT be a test case.	PD26
12284	Also set aside money will become a political football until some or much is gone.	FIN08
13453	Until Polymet can show us places where this type of mining has not resulted in seriously polluted water and land, MN SHOULD NOT be a test case.	PD26
<b>Sender Name (Submission ID)</b> Ronald Pearson (43061)		
11508	Lastly, I would like to state the obvious, even ludicrous assumption- that we can have any degree of certainty about what is going to happen 200 years from now. The only thing we know for sure is that the BWCA will still be here in 200 years. Polymet and its successor companies (or their "financial assurance") -- not too likely.	FIN01
11511	I believe the 'alternatives analysis' provided by Polymet is grossly insufficient...it is incomprehensible to me that this type of mining continues, when there is more than enough of the metals that Polymet seeks to mine available through recycling.	NEPA06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ronald Pearson (43061)		
11512	Why has the Minnesota Department of Health not been involved in a quantitative health risk assessment? I believe this is a critical step to ensure an objective evaluation of public health risk.	HU01
11519	A footnote to Table 5.2.2-50 states "Volatilization rate [of mercury] is estimated based on the low end of the range of values discussed in Section 6.6.2.3. 7 of PolyMet 2013i. ". Why is this allowed?	MERC04
11521	Section 5.2.2.3.4 states "Mercury was not included in the GoldSim model, as insufficient data and a genera/lack of definitive understanding of mercury dynamics prevented modeling mercury like the other solutes. " This is unacceptable.	MERC13
15425	I have grave concerns regarding the likely emissions of mercury from mining operations. The US EPA's review of the draft EIS raised many objections to insufficient characterization of uncertainty and risks from mercury. In my review of the Supplemental Draft EIS, I do not believe these have been adequately addressed.	MERC03, MERC17
15438	The SDEIS states "...The NorthMet Project Proposed Action is expected to have little or no effect on [the factors that appear to influence mercury methylation], but the effect of two of these, sulfate concentrations and hydrolic conditions, warrants further discussion." How can a claim like "...is expected to have little or no effect on most of these things..." be allowed to stand without detailed substantiation of each?	MERC10
<b>Sender Name (Submission ID)</b> Ronald W. Stromsness (45036)		
7094	I suggest we wait until [PolyMet] have a few more notches in their stick, proving this can be done with minimal harm not only to the environment but to human saftey as well!	HU03
7109	I believe the minerals[NorthMet] recover will be sent overseas for processing where decent wages and environmental laws are non-existent!	SO06
7115	When and if we ever do this mineral extraction lets do so when we, the good old U.S. of A can process the materials with good wages, strong environmental and human safety laws to protect not only us but our world.	SO10
7120	We already have problems with mercury and acid precipitation here in Northern Minnesota. Lets not exacerbate to those problems we currently seem to want to do nothing about.	MERC01
<b>Sender Name (Submission ID)</b> Ronnie Puckett (54110)		
15976	I do not believe the PolyMet mine is a good idea until it has been proven safe and clean and Minnesota should not be the testing grounds for this.	PD32
<b>Sender Name (Submission ID)</b> Rory Scoles (18114)		
13494	I want to trust the DNR, the agencies to do their job. I personally watched in my area them not do their jobs. We're all human and make mistake. Our job is to hold people accountable when (inaudible) flood. I do not see those types of events included in these environmental processes. That's one of the biggest oversights. All this will be in the ground for 100 years.	WR077
<b>Sender Name (Submission ID)</b> Rosalie Stefanich (50019)		
12980	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Rosanne E. Fischer (23550)		
3504	The land of Superior National Forest has been purposefully set aside in public trust and should remain so.	LAN01
3505	The acid mine drainage from sulfide mining kills fish, wildlife and plants and irreparably damages the wild rice harvest and way of life.	CU11
3507	A mere 20 years of copper mining will require centuries of water treatment and entails much greater environmental risks than the taconite mining of the past.	SO01, WR035
3511	Mining by-products such as arsenic, manganese, thallium and mercury increase risks of cancer and other illnesses, developmental and neurological damage in human persons.	HU05
<b>Sender Name (Submission ID)</b> Rose Carlsen (45334)		
13022	The short term long range impact on the environment including the moose population, water quality for wild rice, and the surrounding boundary waters wilderness area to name just a few would be dire.	WR111, WR115, WR158
13024	If mining must occur the idea of an underground mine with the tailings being reburied in the mine should be considered.	ALT10
<b>Sender Name (Submission ID)</b> Rose Knopff (20077)		
15730	The PolyMet NorthMet SDEIS inadequately characterizes the wetlands loss and proposes inadequate mitigation measures.	WET01, WET04, WET07
15731	The PolyMet mine site is located in the middle of one of the most valuable wetlands in northern Minnesota, the 100 Mile Swamp. This wetland complex was deemed an Area of High Biodiversity Significance by the Minnesota Biological Survey, and the US EPA has stated that it is likely an Aquatic Resource of National Importance due to its high biodiversity.	WET19
15732	PolyMet proposes the largest permitted destruction of wetlands in Minnesota history. Wetlands replacement plans in the SDEIS are inadequate for replacing the biological function lost from these wetlands, and the SDEIS fails to adequately account for indirect wetlands impacts.	WET01, WET04, WET23
15733	The SDEIS lacks support for its assertion that 70% of the coniferous bogs on the site would be unaffected by groundwater drawdowns.	WET10
15734	Revise the SDEIS to specifically outline measures that will be taken to reduce indirect wetland impacts and compensatory mitigation, as opposed to deferring such contingency planning to permitting	WET01
15735	Revise the SDEIS to provide a range of estimates of indirect wetlands impacts and plans for mitigation based on these estimates, instead of waiting to see what the indirect wetlands impact will be	WET07
15736	Revise the SDEIS to remove assertions that coniferous bogs would be unaffected by groundwater disturbances, as this is unsupported by scientific literature and field data	WET10
15737	Revise the SDEIS to outline what types and amounts of financial assurance for wetland replacement would be required if indirect wetland impacts exceed the predicted area and extent of damage	FIN11
<b>Sender Name (Submission ID)</b> Rose Line (54227)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Rose Line (54227)		
16795	[The Polymet mine] project can generate a pollution for centuries and will poison our pure boundary water to a sulfuric acid. I am concerned about the safety of our environment. Because the map on the polymet is wrong and this is giving the company taking advantage on minning a huge area.	PD38
<b>Sender Name (Submission ID)</b> Rose Olszewski (28182)		
10886	Lake Superior is a glacial lake, its waters are too cold for the wildlife their to recover quickly.	AQ26
10887	I know the economy is poor, but allowing this would only make the areas around the lake poorer. Once a land is tainted it takes decades for it to recover. There are better ways and you have the power to insist on better.	SO01
<b>Sender Name (Submission ID)</b> Rosemary Johnson (7386)		
741	I have not heard any discussion of requiring polymet to dispose of tailings other than storing them on the surface. Why not deposit them in some of our abandoned openpit iron mines or underground mines. The tailings could no longer create surfacewater problems and storage problems would be solved. I know that this sounds simplisticbut some variation of this idea might be feasible.	ALT10
744	We could very well be left with a badlydamaged environment and huge storage costs when the mining company pullsout or becomes insolvent.	FIN01
9110	I understand that Poly Met’s chief investor plans to sell copper concentrate to China. That means that we here in Minnesota will be putting our water quality etc. at risk to benefit one of our most challenging and dangerous rivals.	SO06
9112	I’m all for more jobs and opportunity for young people in our area.	SO10
9114	I am against a project that has the potential to spoil the very things that many of them want to stay here for.	PD01
9118	In the end the MDNR will be blamed for anything that goes wrong with this project [ “the DNR approved it”]. They all have an out but you do not.	PER35
<b>Sender Name (Submission ID)</b> Ross Anderson (39714)		
6892	...mercury is a known neurotoxin and highly regulated pollutant. We use amalgam separators to remove as much mercury as we can from our waste water, and then have the contaminant disposed of properly. .... Adding mercury and arsenic to our waters through a large mine is irresponsible.	MERC17
6894	Using Minnesota and its citizens as another mining experiment is not appropriate. I don't feel the science or technology is advanced enough to successfully complete this mine without adversely affecting public health and the environment.	ALT16
12969	[M]ercury is a known neurotoxin and highly regulated pollutant...Adding mercury and arsenic to our waters through a large mine is irresponsible.	MERC01
12972	The notion that the contamination from something as large as a sulfide mine can be treated and contained is asinine...I don't feel the science or technology is advanced enough to successfully complete this mine without adversely affecting public health and the environment.	PD32

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ross Peterson (14948)		
269	In spite of the promise of much-needed jobs, a huge boost to Minnesota's economy and a new source of precious metals, I am opposed to mining for copper and other metals until the technology exists that guarantees that our water will be safe for use and for future generations.	WR128
<b>Sender Name (Submission ID)</b> Ross Phenning (11611)		
3295	Working in management at an iron mining facility I know that government agencies will continuously monitor the water treatment and will ensure that Polymet is held responsible for any changes in water treatment. Thus I have no concerns with water quality going forward.	FIN16, FIN17, WR190
3295	Working in management at an iron mining facility I know that government agencies will continuously monitor the water treatment and will ensure that Polymet is held responsible for any changes in water treatment. Thus I have no concerns with water quality going forward.	VEG04, WI02, WR001, WR156
<b>Sender Name (Submission ID)</b> rowlandg (43338)		
11414	What's the rush? Those minerals have been in the ground for billions of years and they only get more valuable. Add the unnecessary risk to the environment - I don't think this needs to happen any time soon.	NEPA03
<b>Sender Name (Submission ID)</b> Roxann Snyder (18178)		
3971	500 years of treating groundwater. None of the advocates are talking about how we're going to pay for that. ...We the taxpayers, we're going to be paying for [treating groundwater]. ... I see no estimate on what that is going to cost us.	FIN01, FIN05, FIN10
<b>Sender Name (Submission ID)</b> Roy D Erickson (3667)		
552	The cost/benefit from hard rock mining and the resulting tailings management are diffidently not worth the costs.	SO01
10917	Are these mining jobs worth threatening the BWCAW?	SO01
10930	Are these mining jobs worth threatening the BWCAW?	WR081
<b>Sender Name (Submission ID)</b> Roy Maki Jr. (4354)		
1815	I have seen industries develop new ways of controlling their impact on the environment, while supporting the communities they share space with. ... I believe industry has stepped up to the plate and done what was required based on the knowledge and awareness at the time, has taken responsibility, by taking the appropriate actions for positive environmental stewardship.	PD28
<b>Sender Name (Submission ID)</b> Rudy Perpich (2905)		
12310	If the mining companies work with the U of M and other universities to develop ways to safely contain the pollution, then the permits can be issued.	PER34
12311	We shouldn't even consider a project with a 500 hundred year pollution monitoring requirement. It is ludicrous.	PD01
13456	If the mining companies work with the U of M and other universities to develop ways to safely contain the pollution, then the permits can be issued.	PER34

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Russ Erickson (20039)	
1682	Will any liabilities be attached to future purchasers of those companies? The issue here is that at no point should the state and the taxpayers be left holding the bag for environmental cleanup.	FIN01
1683	[NorthMet should] List and detail the forecast costs of all the environmental clean-up issues 500 years into the future.	FIN01, FIN05
1685	Will the wetlands be replaced?	WET24
1686	Will the moose and other wild life endangered by the loss of their habitat be relocated?	WI01, WI02
1687	Have the lands involved in the land swap been established and judged to be of comparable quality.	LAN03
1688	Will the mine pits be filled in after completion of the mining to restore the landscape?	ALT09
1689	Will the bedrock underneath the tailings locations be studied for cracks and fissures? Will the cracks and fissures be grouted?	WR008, WR090
1690	Will all the acidic waters coming off the tailings piles be captured and run through the RO process for the full 500 year projection of pollution contamination (not just 200 years). Will the mine be required to fund this operations cost of the ground water cleanup and pumping of 10's of millions of gallons a year through Reverse Osmosis filtration for 500 years in advance of the permit being issued.	FIN01, WR009, WR037, WR070, WR128
1691	Will the state code that requires the mine to be left maintenance free at mine closure be upheld? This is a potentially negative economic issue that in the long run will outweigh any short near term jobs and economic issues.	PER04
13918	There should be a moratorium on the permits until the government dedicates real money towards establishing strict studies and develops MN mining rules that guarantee a zero tolerance for pollution issues. They mining company should be required to restore the land and water quality back to original.	PER06, PER25, WR109
13919	Profits should be Escrowed until the mine has closed. Guarantees must be made to the public that continual environmental monitoring be done. That monitoring shall only be done by a citizen approved impartial company with their own financial records monitored by a state auditor to assure the public there is no manipulation of the data. The costs to the state for the continuous monitoring and oversight and auditing shall be borne by the mining company.	FIN01, FIN11
14851	Regulation – It should be made a requirement that only non-partial government regulated third party firms will be allowed to do the monitoring of the environment testing.	PD24
14852	The enforcement and fine structure should be in place and have real consequences for all of the corporate executives involved in the mine. That includes PolyMet , Glencore Xstrata and any future owners or corporate concerns.	PER02, PER03
14853	The definition of what constitutes a failure of the environmental issues should be laid out and made clear for both the mining companies and the citizens of the state.	PD01, PD22
14854	Will you require the corporate partners of PolyMet in the mining company (Glencore Xstrata) be required to sign the permit and share in the mines potential future liabilities?	PER02
14855	The permit should only be let out to a company that can prove through past mine site demonstration that they can mine without damaging the environment.	PER35

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Russ Erickson (20039)		
14856	List the enforcement methods - fines – fees – legal expenses - executive jail terms for failure and list the moneys escrowed by the mining company to be set aside to meet these expenses.	FIN01, FIN08
14857	Will the quality of the land swap be of equal value?	LAN03
14858	Will the peat lands be moved and reestablished as it takes thousands of years to develop them.	WET05
14859	Will they add to the area adjacent to the superior National Forest.	LAN06
14860	Will the mine be responsible for 100 year overtopping rain events?	PD22
<b>Sender Name (Submission ID)</b> russ mattson (26920)		
15261	But we must mine, and we must guard or only home as well. ...Our task is to assure that this mining is done,( in accordance with the most stringent environmental rules in the world) in an acceptable manner. That manner is one in which all available methods are used to assure that we do no damage. And that we, the citizenry, verify the process, continuously.	PER06
15262	We have completed an extremely extensive and lengthy environmental process stretching over six years. This is our duty to ourselves and future generations.	NEPA16
<b>Sender Name (Submission ID)</b> Russ Nolan (43852)		
11865	It just doesn't make sense to approve something that will poison our water for 500 years...or even 200 or even 100.	PD01, WR195
<b>Sender Name (Submission ID)</b> Russel Remmen (54133)		
16010	Don't let money destroy our natural resources!! Air, land, water.	SO02
<b>Sender Name (Submission ID)</b> Russell Hobbie (43051)		
11064	...many of us do not appreciate how harmful the sulfuric acid from the tailings will be. We need to recognize the fact that grinding the rock into small particles increases the surface area exposed to water. ...Slime from the proposed mine would leach sulfuric acid. The acid will be spread to places where it will do damage by the water that is already flowing through the existing tailings basin.	WR150
17495	The number of new jobs that is projected is actually small compared to the number of existing mine jobs in the Arrowhead.	SO06
17496	The short term effects will include excessive noise from drilling and blasting.	N05
17497	The profits will go to people outside Minnesota, and probably in other countries. The profits from tourism remain in the community.	SO02
<b>Sender Name (Submission ID)</b> Russell Martinez (54228)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Russell Martinez (54228)		
16796	The SDEIS made are wrong. PolyMet re-drew the maps. They have left out half of the one hundred mile swamp. That leaves the BWCA completely unprotected from the acide mine drainage.	PD38
16797	Governor Dayton needs to address the MN DNR to do there job and tell PolyMet to provide a correct environmental impact statement that has financial information, has the correct geography in maps, has correct hydrology studies.I would like the maps in the SDEIS (Supplemental Draft Environment Impact Statement) to be corrected. Measure the percolation rate through the swamp.	NEPA09, PD38
<b>Sender Name (Submission ID)</b> Russell Palma (58134)		
19933	I sympathize with the need for jobs in northern MN, but there must be some line in the sand where the cost to the earth and future generations is simply too great to justify the risk.	SO01
19997	The potential impact on future generations is incalculable It is ludicrous to think that any company can plan for hundreds of years of remediation, or that they have the financial wherewithal to cover all contingencies. Polymet is most likely to follow a well-worn path of extraction and abandonment as evidence by Superfund sites all across the western us.	FIN01
20005	The state could better allocate its resources by using the money it would spend to protect ground water for hundreds of years by using it to retrain miners and other Minnesotans for jobs of the future, rather than the extractive past.	SO01
<b>Sender Name (Submission ID)</b> Ruth Bartling (54782)		
19497	Has the world wide supply of copper and nickel been completelydepleted that opening another mine is absolutely necessary for industrialmanufacturing? Or are we opening another mine just because it is there? It might be wise to think about future generations and the needs they will have.	SO01
19498	The life of the mine is anticipated to be twenty years. Who will providethe utilities, the homes, the schools, the recreation centers, the hockey rinks, the libraries, auditoriums, the transportation network, law enforcement agencies, legal services, shops and stores, hospitals and clinics, public services, and parks to name only a few.	SO06
19499	I learned from watching a movie on "fracking" that the women were terrified to go into grocery stores for fear of being subjected to unwanted advances by workers in the majority in the mining town. The values of the town had been completely shredded by an industry that had tom the community apart.	SO04
<b>Sender Name (Submission ID)</b> Ruth Hruby (16129)		
9675	this deposit shoukld be left for at least 50 years for future generations!	NEPA03
<b>Sender Name (Submission ID)</b> Ruth Lindh (373)		
12122	To allow this kind of damage to our Minnesota waters for a few hundred relatively short term jobs would be a classic case of "Penny wise and pound foolish."	SO02
14415	The direct destruction of 913 acres of wetland and the danger to over 7,000 more acres of wetland is not wise stewardship of our precious state resources.	WET24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ruth Lindh (373)		
14416	Twenty years of profit versus 500 years of pollution and the loss of something that can never be replaced is foodhardy and misguided.	SO01
<b>Sender Name (Submission ID)</b> Ruth Mason (58018)		
19878	The quality and short term gain of jobs does not balance the long term destruction of water, land, habitat and quality of life.	SO01
<b>Sender Name (Submission ID)</b> Ryan Birkenholz (6131)		
1092	The extensive regulations and controls they must go through provide a reasonable assurance that environmental impacts will be kept to a minimum.	PD28
<b>Sender Name (Submission ID)</b> Ryan Christopher Alger (43456)		
15706	One of the most nocitable side affects of the drilling is the excessive noise pollution. Particularly in the winter when sound travels much further. One of the issues with the current NorthMet SDEIS that i've recognized is the inaccuracy of the projected levels of noise pollution and the GIS models used to estimate them. ... The amount of noise generated and how it affects wildlife should also be looked at closer.	N04
15709	The SDEIS does not adequately project the possible damage and risk of a spill, leak, or overflow from containment ponds. The mine must be designed to withstand at least a 1,000 year rain event without risking pollution. The DEIS does not adequately factor in the long term affects of climate change.	NEPA15
<b>Sender Name (Submission ID)</b> Ryan Gaffke (6139)		
1045	believe they will build and operate a mine that complies with all regulations and protects the environment.	PER34
1046	demonstrates that PolyMet can develop this resource in a sustainable manner and there are logical, engineered solutions proposed for potential impacts.	PD28
1047	PolyMet will....generate significant economic activity, expanding and diversifying our mining economy. PolyMet will contribute to the local and state economy at a time when we really need the jobs and economic benefit. PolyMet can...create hundreds of jobs....PolyMet will provide millions of dollars in local and state taxes to support our communities and educational system.	SO10
<b>Sender Name (Submission ID)</b> Ryan Heule (3273)		
198	Does the financial assurance take into account inflation in the event this mine operates beyond its 20 year life?	FIN08
199	After this project does go end of life who will be responsible to post shutdown monitoring of the tailings basin and pit water in the event Northmet is no longer around?	PD24
<b>Sender Name (Submission ID)</b> Ryan L. Burke (43968)		
14934	The people of Minnesota need sustainable investments that will bring us ahead, and not destroy our water systems and the Northern economy. These companies do not have the state's best interest, nor do they plan on making long-term investments in our people.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ryan L. Burke (43968)		
14935	I am writing you today to ask that this proposal be rejected on the grounds that it puts all Minnesotans at risk.	PD01
<b>Sender Name (Submission ID)</b> Ryan Mc Bride (32225)		
12025	I do not believe that the possible contamination of Lake Superior, and hence the entire Great Lakes waterway, and the Boundry Waters Canoe Area Wilderness is worth the minerals gained via mining in these areas.	SO01
<b>Sender Name (Submission ID)</b> S. Alexandra Leary (52194)		
12916	The map the Polymet mine people have offered in their paperwork doesn't encompass the entirety of the 100 Mile Swamp as is indicated on government maps.	WR080, WR175
12917	I believe [the use of inaccurate maps] is an intentional misrepresentation by Polymet of the SCALE and NATURE of the 100 Mile Swamp which encompasses wetlands and ephemeral wetlands.	WET19
12918	Once pollutants like sulphuric acid begin to slowly seep into the 100 Mile Swamp, the ecological security of the nearby Great Lakes is no longer.	WR080, WR081, WR111, WR167, WR175
12919	The nature of the Great Lakes fishery will change for aeons and the use of the Great Lakes as a source of fresh, potable water will be compromised for two countries if the impossible nature of the reality of a 500-year remediation plan is ignored.	AQ05, WR042
12920	Chemical contamination lagoons in such an ecologically sensitive area w/such a high water table would be subject to extreme of temperatures from the freezing and thawing and I cannot imagine these lagoons would hold up over a 500-year remediation period.	WR127
12922	There is no reality in this EIS to the suggestion this company is intent on allocating financial resources for the expected 500-year remediation period, never mind if they've made any effort to scale up their remediation efforts if there is any leakage over time that begins to infiltrate the Boundary Waters Canoe Area Wilderness.	FIN01
12923	If the hydrology studies show that Polymet is unwilling to TRULY PROTECT the Rainy Lake watershed and the Great Lakes by drilling test wells for polution tracking and is otherwise unprepared to handle subterranean pollution, then the permitting process should be reconsidered.	PER06
12925	This site must be handled by attaching a PERMANENT LEGAL STRICTURE as to its continuing remediation that must be the responsibility of the Polymet company and any subsequent transfer of Polymet to another corporate entity.	FIN01
16226	This mapping discrepancy should have been one of the first things on which the Minnesota Department of Natural Resources demanded clarification from the Polymet organization in the early years of development of the EIS. To add to this issue of what surface waters are contested as being potentially subject to pollution, the hydrology of the area is not well understood other than in the vaguest practicable terms.	PD38
16227	There is also no sign Polymet intends to add hydrology protections to its management of the site by drilling test wells to test for seepage at set distances from the site.	PD04
16228	I believe we must conduct baseline hydrology mapping of the 100 Mile Swamp, the Dunka River and other flowage in the Rainy Lake watershed so we have a clear understanding of subterranean water flow and just how quickly we are risking pollution seeping into the Great Lakes.	WR080, WR081, WR175

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> S. Alexandra Leary (52194)		
16229	It's time for America's citizens and America's oversight organizations to understand the nature of CORPORATE TACTICAL MALFEASANCE and realize that we must protect ourselves against corporations in ways that are far more legally binding especially given a 500-year horizon of oversight being required.	FIN04
<b>Sender Name (Submission ID)</b> Sally Bujold (4861)		
1907	This [99%] waste rock bears sulfide. Sulfide-bearing rock exposed to air and water yields sulfuric acid, producing forms of pollution (including mercury, arsenic, lead, and other toxins) that, according to PolyMet's own documents, will last at least 500 years.	PD01, WR001, WR035, WR059
1912	copper scrap already provides half of U.S. annual demand for that metal and the U.S. provides 23% of the world supply of recovered copper, recycling holds tremendous potential for fulfilling most of this nation's needs.	NEPA06
1913	Typically, mining companies import their expertise from elsewhere; only half the jobs promised by the mining companies are apt to go to local residents; the highest-paid positions will be taken by outsiders, who will leave the area once the mine has been exploited.	SO06
1915	The metals extracted from these mines will likely be exported; the profits will go to share-holders around the world rather than the residents of northern Minnesota.	SO06
1916	History predicts that once these mines are exhausted, their owners will declare bankruptcy and absolve themselves of responsibility for damage left behind.	FIN01
1917	Sooner or later, copper-nickel waste rock creates acid mine drainage, which often eats its way to ground water. New technology remains experimental, untested on an industrial scale, while exploratory drill sites in northern Minnesota are already leaking acid.	PD32, WR023, WR128
1918	who will pay for, operate, and maintain this technology twenty-four hours a day, day after day for 500 years or more?	FIN01
1919	Over the past two decades, while the mining workforce shrank, the economy diversified and grew less vulnerable to the boom-and-bust cycle of the mining industry. We support continued diversification [forestry, farming, recreation, iron mining].	SO02
1993	Copper-nickel mining, always risky for humans and their environment, is least dangerous in arid settings; but northern Minnesota, the site of three major watersheds, is one of the richest sources of freshwater in the world. Such wealth requires our most careful stewardship.	WR115
<b>Sender Name (Submission ID)</b> Sally Drew (27782)		
14738	Is sulfide so rare that it is worth endangering the wetlands, rivers, lakes and streams in this area?	WR115
14739	I do not understand how the federal government can allow mining activities in national forests. Was not this land put aside so that this would not happen?	LAN02
<b>Sender Name (Submission ID)</b> sally furness (57685)		
19363	The contribution to state and local economies will be substantial.	SO10
<b>Sender Name (Submission ID)</b> Sally Munger (18132)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sally Munger (18132)		
13454	Why would we want to take a chance on this process when we are in a water-rich area and the report itself says that remediation will be needed or could be needed for 500 years.	PD03, WR195
13455	Add to that that copper-nickel mining has never been done anywhere without significant environmental damage. Let me say that again. Copper-nickel mining has never been done anywhere without significant environmental damage.	PD26
13508	Now, that new thing is reverse osmosis. Before we take one step to do this, I ask that it be proven that this process will work on the scale that will be needed.	PD03
13509	Are the jobs that will be created livable-wage jobs, and how long will they really last?	SO02
<b>Sender Name (Submission ID)</b> Sally Rauschenfels (44096)		
15148	despite my desire for well-paying jobs here, I am smarter than to be seduced into the clutches of this slick Polymet project public relations campaign and resulting incomplete SDEIS for the greedy gain of a few dozen unsustainable jobs. ... The fact that our Minnesota DNR is even considering putting at risk our 10% of the world's fresh water for short-term economic gain is sad and shameful.	SO01
15149	The SDEIS provides no detailed definition of what financial assurance funds will be placed in trust to ensure that water flowing from the waste piles and tailings ponds will be treated and maintained for the required hundreds of years, and that contamination episodes can be cleaned up in the highly predictable event that the company goes out of business soon after closure.	FIN01, FIN08
15150	The hydrologic model for the water moving through the mining and processing site dramatically underestimates the volume of water passing through, and the rate it moves across and under the waste containment sites. Thus, this crucial predictive tool greatly understates the risk of significant acid rock drainage impacts to surrounding wetlands, groundwater, the Partridge and St. Louis Rivers, and ultimately Lake Superior.	WR003, WR189
15151	This revised version of the project has not been improved enough to assure that the mine's waste and the laws and variables of nature can now be managed so as to avoid major pollution for the indefinite future, beyond a time when our present regulatory systems may even be functioning.	PD01
15153	Unlike ferrous mining, Polymet's open pit sulfide mine operation has significantly greater potential to pose human health risks through contamination of drinking water and fish, seriously degrade the St. Louis River, destroy wild rice and irreplaceable wetland habitat, and harm the lake that holds the world's fresh water.	HU03, WET24
<b>Sender Name (Submission ID)</b> Sam DiVita (44760)		
7238	I disagree with how the current (Supplemental) Draft EIS disregards the concerns of the Fond du Lac and Grand Portage Tribal Governments, the 1854 Treaty Authority, and the Great Lakes Indian Fish and Wildlife Commission.	CR01
7242	I also believe the some of the maps in the draft are incorrect. Specifically, the map of the One Hundred Mile Swamp...therefore the environmental impact statement is inadequate until the maps are corrected to show the real details of the area.	PD38
7244	I do believe that runoff from the project will enter the BWCAW and impact our waterways and wilderness areas in Minnesota.	WR111
<b>Sender Name (Submission ID)</b> Sam Ilstrup (40101)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sam Ilstrup (40101)		
6463	PolyMet would be a huge consumer of electricity, much of it coming from dirty, inefficient coal power plants in Minnesota. As the SDEIS states, PolyMet would emit 707,342 metric tons of carbon dioxide pollution into the atmosphere every year...The Minnesota DNR, through the mine plan, should require use of clean energy to reduce impacts of pollution.	AIR01
6464	PolyMet's regular mining practices disturb the peatlands, they will release nearly 200,000 metric tons of carbon pollution into the atmosphere...these peatlands and their stored carbon should be left undisturbed.	WET13
6466	fails to examine the impact of precipitation events any greater than the "100-year storm." Given climate change...the Minnesota DNR should include a 500-year storm analysis of both the mine pits and the tailings basin.	WR057, WR077, WR180, WR193
6467	the SDEIS should have included a thorough discussion of financial assurance - how much money, and in what form, the mining company should put down to cover the costs of cleaning up the site and addressing problems.	FIN01, FIN05, FIN08, FIN13
<b>Sender Name (Submission ID)</b> Sam Johnson (38440)		
13620	Since this [project] involves sulfide rich ore and the best of projections indicate that this type of mining cannot be done without long-term risk to groundwater contamination, I believe the plan to do such mining at key headwater sources is impractical and ill-conceived.	WR195
<b>Sender Name (Submission ID)</b> Sam Steinberg (43579)		
9939	If 2200 pages are required to explain exactly how this project can be safely implemented, then there must be tremendous potential for negative outcomes.	NEPA07
15135	look west to Holden Village to see the legacy a copper mine can leave. That mine has left a scar on the face of one of the most pristine and beautiful wilderness areas in the world. Let's not allow PolyMet to do the same thing to our wilderness areas.	WILD02
<b>Sender Name (Submission ID)</b> Samantha B. Singer (6025)		
1529	There is absolutely no way [PolyMet] can deliver on a promise to treat the water until it is no longer polluted.	WR035
<b>Sender Name (Submission ID)</b> Samantha Bauer (44073)		
14915	I am deeply concerned that PolyMet, a company that has never before operated a mine, will not be able to follow through on their claims to not pollute, and that it will be my generation that has to pay the price – in superfund taxes, and by losing priceless wilderness.	PD23
14916	I know that jobs have to be created, but I would prefer to see efforts channeled towards lasting jobs, not positions that will be cut as soon as the mine is either shut down or done providing copper.	SO02
14917	PolyMet's Supplemental Draft Environmental Impact Statement talks about using 'reverse osmosis' on the water to keep pollutants from leaching into the aquifer and the Lake Superior Basin, but the science isn't sound.	PD03
14918	Even if reverse osmosis did work, 99% of what the mine is going to produce will be waste products. Is that 1% of copper-nickel needed so badly that we can afford to overlook the potential damage that could be done to more than 8,260 acres of St. Louis River watershed?	WR111, WR143

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Samantha Bauer (44073)		
14919	I would like to request that action be taken against the PolyMet plan, in the form of postponement until a better plan can be developed that captures and controls runoff pollution from the mine. I would also like the plan to address the care of workers, as PolyMet’s financial backers have a history of human rights violations.	PD23, PD32
17269	I am deeply concerned that PolyMet, a company that has never before operated a mine, will not be able to follow through on their claims to not pollute, and that it will be my generation that has to pay the price – in superfund taxes, and by losing priceless wilderness.	FIN01, FIN10
17270	I know that jobs have to be created, but I would prefer to see efforts channeled towards lasting jobs, not positions that will be cut as soon as the mine is either shut down or done providing copper. This copper, incidentally, will be sold to China instead of used in the United States, which I also object to.	SO02
17271	PolyMet’s Supplemental Draft Environmental Impact Statement talks about using ‘reverse osmosis’ on the water to keep pollutants from leaching into the aquifer and the Lake Superior Basin, but the science isn’t sound. Even if reverse osmosis did work, 99% of what the mine is going to produce will be waste products. Is that 1% of copper-nickel needed so badly that we can afford to overlook the potential damage that could be done to more than 8,260 acres of St. Louis River watershed? Open-pit mining like this has been done in more arid climates, and pollutants have still found their way into water. That threat will only be more potent in our water-rich environment.	WR111, WR143
17273	I would like to request that action be taken against the PolyMet plan, in the form of postponement until a better plan can be developed that captures and controls runoff pollution from the mine. I would also like the plan to address the care of workers, as PolyMet’s financial backers have a history of human rights violations.	HU04, PD32
<b>Sender Name (Submission ID)</b> Samantha Henderson (54339)		
17574	I think that we all use products everyday that we wouldn't have if these metals weren't made available.	NEPA05
17575	I think that the project proposer is going to be responsible and minimize the effects of water pollution and air pollution. For example, PolyMet has come up with air filters that can help filter during rock crushing and processing. They are also going to use energy efficient equipment and processes.	AIR14
17576	To minimize water pollution they propose to have liner systems to prevent chemical from seeping into the ground. They will have groundwater containment systems to help control the wastewater.	WR190
17577	PolyMet will use old mining sites to plant new vegetation on. They will keep the invasive species under control in these areas. They will also put back some nutrients in the soil that are needed for the land to have growth again.	PD28
17578	Polymet will have to remove some wetlands, but they will be replacing them elsewhere. They will try to work around them the best that they can.	WET25
<b>Sender Name (Submission ID)</b> Samantha Henningson (47706)		
8090	The landscape and waters of Minnesota are forever, and I do not believe for one minute that PolyMet will pay to remedy problems that this is created...	FIN01
11154	I understand there are jobs at stake, and that the minerals being mined are in demand. But these are short term considerations.	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Samuel Crook (32548)		
13836	Are you going to bet the future our children and grandchildren will have to deal with, on what many would consider infantile obsessions with power and money?	SO01
<b>Sender Name (Submission ID)</b> Sandi Paavola (11607)		
2280	It [PolyMet SDEIS] doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	WR041
2280	It [PolyMet SDEIS] doesn't analyze the effect of pollution on workers' health or on nearby drinking water wells.	WR041
2281	It [PolyMet SDEIS] doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	WET20
2281	It [PolyMet SDEIS] doesn't explore alternatives that could reduce PolyMet's destruction of wetlands.	WET20
2282	It [PolyMet SDEIS] doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	AQ28
2282	It [PolyMet SDEIS] doesn't examine the effect that PolyMet's sulfide mine, combined with other mines, would have on toxic pollution, like mercury contamination of fish.	AQ28
2283	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin.	WET24
2283	The PolyMet sulfide mine plan would destroy up to 8,263 acres of wetlands in the Lake Superior Basin.	WET24
2284	Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	AQ05, WR107, WR108, WR156, WR158
2284	Its waste rock piles, mine pits, and tailings waste would leak and seep pollution into surface water and groundwater, increasing sulfates and toxic metals that harm fish, destroy wild rice, and impair health of adults and children.	WR037, WR038
2285	the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity.	WI02, WI01
2285	the SDEIS shows that pollution from the mine tailings and waste heaps would last for at least 500 years. Pollution seeping from mine pits into the Partridge River surficial waters "would continue in perpetuity.	PD01, PD03, WR035, WR070
<b>Sender Name (Submission ID)</b> Sandra Berg Dickson (42264)		
6751	The very thought that we would take a "chance" on polluting our presteen northland for jobs that will last less twenty years over pollution that could last over five hundred years totally baffles me.What is more important to all living beings than our water supply?	SO01, WR115
<b>Sender Name (Submission ID)</b> Sandra Fantz (38592)		
14052	This dangerous sulfide mining operation threatens to pollute Minnesota water with sulfuric acid and heavy metals for 500 years and endangers clean water and habitat in the Lake Superior basin.	WR111, WR115

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sandra Fantz (38592)		
14053	The boundary waters in Mn is a national treasure and should be protected not ruined. We cannot buy that kind of environment and it is inappropriate to mine near it and destroy it.	WILD02
<b>Sender Name (Submission ID)</b> Sandra Reuther (21202)		
1513	How is it possible to contaminate water, air, land and negatively impact wildlife areas in return for 350 jobs and 20 yrs of production.	SO01
8950	It is ridiculous to mine in the Superior National Forest a location set aside for wildlife, and for generations to come as a area of beauty and nature for all to enjoy.	LU06
8950	It is ridiculous to mine in the Superior National Forest a location set aside for wildlife, and for generations to come as a area of beauty and nature for all to enjoy.	LU06
8955	How is it possible to contaminate water, air, land and negatively impact wildlife areas in return for 350 jobs and 20 yrs of production. This then requiring a 200 to 500 year clean up, if cleanup is even possible. Water, Land, Nature are the three most important qualities that any state has, to ruin them would leave the next generations a state with problems much more serious than jobs.	SO01
8955	How is it possible to contaminate water, air, land and negatively impact wildlife areas in return for 350 jobs and 20 yrs of production. This then requiring a 200 to 500 year clean up, if cleanup is even possible. Water, Land, Nature are the three most important qualities that any state has, to ruin them would leave the next generations a state with problems much more serious than jobs. Without clean water and food tradition is negated.	SO01
8958	Mine Co. leaves the mess to the local community. Reading on I note [PolyMet] has never operated a mine before; it is not an American Co. and the parent Co. has a record of tax evasion and numerous fatalities.	FIN01
8958	Mine Co. leaves the mess to the local community. Reading on I note [PolyMet] has never operated a mine before; it is not an American Co. and the parent Co. has a record of tax evasion and numerous fatalities.	FIN01
8963	No example of a Copper/Nickle mine that has not contaminated water.Sulfuric acid produced with negative effects on soil and plants... Without clean water and food tradition is negated.	WR023
8963	No example of a Copper/Nickle mine that has not contaminated water.Sulfuric acid produced with negative effects on soil and plants... Without clean water and food tradition is negated.	VEG06, WR023
8965	[Copper/nickle mining has] never before tried in MN.	NEPA03, PD26
8965	[Copper/nickle mining has] never before tried in MN.	NEPA03
<b>Sender Name (Submission ID)</b> Sandra Wagner (54842)		
18948	Everybody knows there are other companies waiting to see how Polmet fairs, before lining up to apply for their permits to mine. Therefore, I do not recognize this process as legitimate because it fails to consider the cumulative environmental impacts in the context of multiple mines.	CU04
18949	I also find it wholly disingenuous that financial assurances are not defined and part of this step in the process, when the DEIS acknowledges hundreds of years of pollution...I do not believe [the cost] can be feasibly calculated.	FIN05, FIN13

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sandra Wagner (54842)		
18950	I will not stand idly by and watch sovereign Treaty Rights abrogated in this quest.	PER08
<b>Sender Name (Submission ID)</b> Sandy Bergeron (39346)		
12831	Let's not take short term gains for a few take our natural resources for the future.	SO01
<b>Sender Name (Submission ID)</b> Sandy Loney (14840)		
224	Why would we want to swap out high quality land for lower quality lands scattered around?	LAN03
1770	Why would we risk having anything happen to our Superior Nat'l forest and fresh water supply?	WR111
3571	...I am contacting you to plead that you stand up for our fresh water, forests, and American Indians of Minnesota. There is so much to lose with this project!! Why would we risk having anything happen to our Superior Nat'l forest and fresh water supply?	CR01
3573	Why would we want to swap out high quality land for lower quality lands scattered around? What is the benefit for Minnesota? There is NONE! ... The short term jobs aren't worth it. Don't sell out the state for the rest of us.	SO01
3618	No way should mining waste be happening near our national treasure ~ clean fresh water!	WR195
16238	PolyMet's main investor is known around the world for being a major polluter. Why would we risk doing business with this company? Are you really willing to risk our water? Will you be able to sleep at night if/when an accident occurs?	PER02
16239	Why would we allow ANY corporation with a notorious environmental record anywhere near our Minnesota forests and water? Again.... What is the benefit for Minnesota? There is NONE!	SO01
<b>Sender Name (Submission ID)</b> Sandy Sterle (15965)		
956	I am dismayed that [the Co-lead agencies] ... continue to consider a mining project, which would create ongoing heavy metal and sulfate pollution in the St. Louis Watershed and would need 200-500 years of ongoing water treatment after closure of the mine and processing site.	PD01, WR115
958	This proposed mining project does not meet the Minnesota Rules (6132.3200) which states when a proposed mine is closed that it is to be left clean and maintenance free...this proposed mine would create a need of at least 200-500 years to finance testing and maintenance of water quality.	PER04
959	The mining industry is notorious for avoiding liability after taking financial gains, so requiring a 500-year financial assurance is an unrealistic expectation.	FIN01
962	The SDEIS does not clarify the proposed project's effects on tribal traditional practices and cultural rights guaranteed under treaty.	CR01
963	The SDEIS does not include analysis of indirect effects on the aquifer	WR010
964	The SDEIS does not ... clarify in detail encumbrances on the lands to be received in the land exchange.	LAN04
965	The wetlands lost at the mining site will not be functionally replaced in the St. Louis River Watershed	WET03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Sandy Sterle (15965)	
967	the land exchange negates the original purpose of the U.S. Forest Service to protect these lands, forests and waters at its headwaters.	LAN02
969	the SDEIS needs to be redone to transparently analyze all the short-term, long-term and cumulative negative impacts from an open-pit sulfide mine in a water rich environment.	SO04
970	This SDEIS does not include an analysis of the risks to mine employees and surrounding communities from exposure to air pollution possibly containing asbestos-like fibers ... [or] the long-term health risks of people exposed to water polluted with heavy metals and sulfates from ongoing and long-term water seepage into groundwater, and the Partridge and Embarrass rivers. The SDEIS must be redone to include a rigorous health risk assessment.	AIR03, HU01, HU04
974	The SDEIS economic analysis stands on an old vision of inflating the benefits of extractive mining without revealing the costs of significant current and long-term negative environmental impacts.	SO04
975	the economic analysis misrepresents the tax benefit by not subtracting tax breaks given to the industry, and by not adding the costs to the local, county, and state for public services following this project's development.	SO04
976	The economic analysis under represents comparisons to tourism and other sectors that support tourism. It does not consider potential long-term loss of tourism due to impacted natural aesthetics along with polluted air, water and mercury in fish.	SO02
977	This SDEIS economic analysis should be rejected because of its emphasis solely on the benefits of mining while leaving out the costs.	SO04
978	By allowing this SDEIS to avoid transparency and by lacking balanced analysis, the three governmental agencies are effectively letting go of protecting our public lands and waters.	NEPA15
980	The ideal way to apply this rule [MN Rule 6132.3200] is to not permit seepage of polluted water and the site must be cleaned up during operations, so most of the cost of cleanup is applied as an expense against yearly profits.	PER04
982	[This] is a setup for the future citizens of Minnesota to pay to test and maintain water treatment at the mine and processing site for the next 200-500 years. ... Even if the company were to pay these costs up front, it is not realistic to expect investments to be risk-free for centuries, or to expect a state agency to be able to protect financial assurance from future legislation redirecting these funds elsewhere.	FIN01, FIN08, FIN10
986	The realistic scenario is if the mine is left with a need for active maintenance after closure... eventually citizens will have to pay the cost for cleanup and consequences of the health hazards from heavy metals and sulfate water pollution into ground water and into the watershed	FIN10
988	This proposed sulfide mine should not go forward because it would create ongoing heavy metal and sulfate pollution in surface water, ground water and into the St. Louis River Watershed, which provides drinking water to communities and flows into Lake Superior.	WR041, WR042, WR195
990	This pollution contributes to mercury buildup in fish, and could make this natural resource unsafe for consumption in most of the St. Louis River Watershed.	AQ05, AQ11
991	Fishing is very important to Native people and Minnesota's tourist industry. Warnings about more mercury in local fish negatively affect tourism.	SO02
993	this pollution affects production of wild rice, which is just one of many hunting and gathering rights protected by treaty for the Native American community.	CR01, WR156

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Sandy Sterle (15965)	
994	The SDEIS must be redone to show the full impact on ground water, and the Partridge and Embarrass rivers.	WR044, WR045, WR058, WR173
999	It is unclear whether there are full emergency plans to respond to a long-term power outage or other unexpected failures such as: water treatment plant equipment failure, failure of lining material as it ages, and accidental releases of hazardous wastes. The SDEIS needs to add emergency contingency plans for equipment and other failures along with revealing the estimated volume and level of contamination released from uncontained discharge of polluted water.	PD22, WR127, WR130
1000	The public near the proposed mine needs to be informed with clear explanation and pictures of consequences to their health and environment from polluted air and water from sulfide mining, so they are fully aware of what they are inviting into their community.	SO04
1002	The land exchange is a net loss of wetlands for the St. Louis River Watershed.	WET15
1012	Proposed wetland mitigation will take place outside of the watershed, meaning the type and function of the wetlands will not help water quantity and quality within this watershed ... [and] the function of the 900+ acres of wetlands on the proposed mining site will be lost forever.	WET03
1015	The water table will be drawn down for an unknown distance around the mine, which could encompass an additional 7,000 acres. The SDEIS needs to be redone to include analysis of these 7,000 acres of indirect effects on the aquifer and surface hydrology.	WET10, WR119
1016	In the SDEIS, it is unclear if the lands to be exchanged are free of encumbrances. If the lands already have split interests of minerals, aggregate or timber reserves this could lead to a setup for another land exchange. The SDEIS needs to clarify the title of each of the lands to be exchanged.	LAN04
1017	The SDEIS needs to clarify the title of each of the lands to be exchanged. In the SDEIS, it is unclear if the land exchange is legal.	LAN04
1021	My concern is this proposed land exchange seems to negate the spirit of the law ... [and instead] makes this land unavailable to the public due to it being turned into a permanent industrial waste site ... The SDEIS needs to be redone to reveal all the legal questions and negative consequences from this exchange.	LAN02
1022	the water aquifer will be drained down and ground water will be exposed to pollution from untreated toxic mine seepage	WR086
1023	local citizens could develop cancer or other health problems	HU05
1024	public wetlands will be turned into an industrial waste site effectively creating a net loss of wetlands in the watershed	WET24
1027	mercury in fish will rise leading to less tourism and a loss of tourism related jobs	SO02
1029	wild rice production will be negatively affected, Native American treaty rights will be affected	CR01, WR156
1030	Minnesota taxpayers will be left to pay for 200-500 years of water treatment once PolyMet or the financial organization holding financial assurance goes bankrupt	FIN10
2011	mining has a long history of boom and bust of the local economy, which will likely impact PolyMet's employees and the community before it closes.	SO02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sandy Sterle (15965)		
2012	It came to my attention that the major financial backer to PolyMet is a large international corporation, which has a poor record for worker rights, indigenous rights, and environmental pollution.	PD23
15560	..it is unclear if the land exchange is legal. The proposed mining site is land acquired under Weeks Law...does this mean that this land acquired for forest usage and water flow specifically located near the headwaters of Embarrass and the Partridge Rivers which are tributaries to the St. Louis River and flow into Lake Superior, cannot be exchanged due to their...status under the Weeks Law?...The SDEIS needs to be redone to reveal all the legal questions and negative consequences from this exchange.	LAN02
<b>Sender Name (Submission ID)</b> Sandy Stoffel (15427)		
8935	For those that argue that it will be bring jobs to the arrowhead region need to learn their facts. Over 60% of the employees will be brought in from out of the region. ... Polymet has already grossly decreased how many "proposed" jobs there would be.	SO06
12836	The matter isn't "if" the water will be polluted, but "when" it will be polluted. With moose deriving not just water but also food from the waterways around the NorthMet project, moose will be negatively affected by this mine.	WI01
12837	Tourists bring \$1.6 billion in revenue per year in the arrowhead region. They travel from around the world to fish and camp in the pristine waters of the Boundary Waters Canoe Area Wilderness. What's going to happen to that revenue when the fish are killed off and the waterways are too toxic to swim or even camp nearby?	SO02
13818	I believe that Polymet needs to prove they can build a mine that will protect the environment and our waters 100%, this needs to be proven in another state.	PER35
13819	Over 60% of the employees will be brought in from out of the region. Not to mention the fact that Polymet has already grossly decreased how many "proposed" jobs there would be.	SO06
13820	Let Polymet prove, in another state, that they can make a mine 100% environmentally safe.	PER35
14878	To date, there hasn't been one sulfide mine or open-pit mine that hasn't polluted the waterways. ...while all projects reviewed stated that it wouldn't pollute, over 76% of the time it did. Along with that, 89% of these mines polluted when it was stated that it was "completely safe".	WR023
14879	when these mines contaminate, it is up to the taxpayers to fend for the tens-of-millions-of-dollars bill because some of the mining companies filed for bankruptcy.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Santiago and Laurie Sovell-Fernandez (43323)		
11837	I question the accuracy of the modeling used to predict the impact of the project on both ground and surface water quality and quantity due to data limitations. More data is needed to make an accurate assessment of potential impacts in these areas.	WR025, WR071, WR072
15749	I strongly question the conclusion of the SDEIS on potential sulfate and mercury pollution impacts to water resources within and near the project area. Interactions among these water quality constituents are complex and many questions remain about the necessary rules and enforcement required to adequately ensure protection and nondegradation.	PER06

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Santiago and Laurie Sovell-Fernandez (43323)	
15750	I believe we must take a precautionary stance on a project of this nature and magnitude. If a true Cost Benefit Analysis was conducted, would 20 years of extraction and a few hundred short term jobs outweigh the cost of (at least) 500 years of pollution clean up and health impacts of which we can not know?	SO01
<b>Sender Name (Submission ID)</b>	Sara Anderson (57254)	
17388	What effects does this have on human and animal life, since NO testing has been conducted on cancers, illnesses, water pollution linked to human/animal life indirect correlation to the proposed mine?	HU03, WI04
<b>Sender Name (Submission ID)</b>	Sara Barsel (43009)	
11676	How will the RO plant be powered? There is no indication of a dedicated energy source/power plant for the reverse osmosis component of the wastewater treatment plant. ES-17 Industrial RO plants have their own, designated power plants...How will power outages impacting the RO plant be addressed?	PER04
11677	Who will maintain the [reverse osmosis ] RO plant after mine operations cease, at what cost , and paid by whom?	FIN01
11678	Because function of the RO plant is critical to satisfaction of the current Minnesota Wild Rice Sulfate Standard (Minn. R. 7050.0224, subp. 2), and potential modifications to the current rule will most likely include retention of 10mg/L as the maximum aqueous sulfate concentration, the ability of this RO plant to process mine water that meets the standard is essential. PolyMet / NorthMet Project has repeatedly stated that the water discharge will meet this standard. Consequently, detailed answers to the above questions [regarding the RO plant] are essential, and the SDEIS should be rewritten to include this information.	WR143
11696	The SDEIS does not address the potential for catastrophic failure of the mine pit walls....The SDEIS does not refer to use of methods for predicting catastrophic failure of open pit mine walls during mine operation or after mine closure.	GT15, WR202
11701	The SDEIS does not indicate that PolyMet/NorthMet has considered the consequences of such [mine pit wall] failures on...Fatalities to human and animal populations [and] permanent interruption of wildlife corridors	WI01, WI03
11703	The SDEIS does not indicate that PolyMet/NorthMet has considered the consequences of such [mine pit wall] failures on...Pollution of MN waters (lakes, streams, and wetlands around the project area and downstream) and the consequences (to health, loss of biodiversity, remediation costs, etc.)	WR202
11706	The SDEIS does not indicate that PolyMet/NorthMet has considered the consequences of such [mine pit wall] failures on...Economic costs to PolyMet, the State of Minnesota, any proximal mining operations contracting NorthMet for processing operations (the copper-nickel-PMG properties in the Duluth Complex that are close to the Erie plant facility which may consolidate under PolyMet)	FIN05, FIN12
11713	Impact on mining operations (loss of infrastructure, suspension of mining operations), including the plant sites total capacity. Polymet's Edison Report analyzes details for the investment potential of expanding the project.	SO04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Sara Barsel (43009)	
11770	The SDEIS insufficiently addresses issues related to nondegradation and/or antidegradation related to water....Under the provisions of MN Rule Part 7050.0185 Nondegradation for All Waters and other Minnesota Rules, I formally request that the following items be addressed in the SDEIS, with appropriate determinations by the MPCA Commissioner:•Are any of the proposed discharges from the Project new or expanded discharges, as defined in the Rule 7050.0185?•Are any of the proposed discharges from the Project “significant” discharges, as defined by the Rule 7050.0185?•If any of the discharges are significant discharges from either a point or nonpoint source, the MPCA shall determine whether additional control measures beyond those required by MN Rule 7050.0185 subpart 3 can reasonably be taken to minimize the impact of the discharge on the receiving water. If it is appropriate to consider any alternatives, please revise the SDEIS accordingly....•Because all NorthMet Project area waters are also designated Outstanding International Resource Waters (Minnesota Rules, parts 7050.0460 and 7052.0300), I request that a full nondegradation demonstration for all bioaccumulative substances of immediate concern (e.g., mercury) is completed and approved by the MPCA as part of the SDEIS and before the permitting process begins....•Under MN Rule 7052.0310 subpart 4, the SDEIS should address the question of whether the proposed Project discharges constitute a nondegradation demonstration trigger. ...•Under MN Rule 7052.0310 subpart 6, the MPCA should address whether any or all of the proposed discharges should be allowed only if there is not a prudent and feasible alternative to the discharges....The deficiencies of the SDEIS related to nondegradation are made obvious by the fact that the word “nondegradation” appears only twice in the entire body of the SDEIS.	PER09, WR109
11778	Who will pay for all the future monitoring and related laboratory work? ...Mechanical water treatment was included in the modeling for 200 years at the Mine Site and 500 years at the Plant Site. The actual duration of the needed mechanical water treatment is described as “uncertain”. How will the cost be predicted and the appropriate funding established if the duration is “uncertain”?	FIN01, FIN05
11779	It would be a conflict of interest and not in the best interest of the State for the Project Proposer to perform or oversee the monitoring or related laboratory analysis. The SDEIS should be revised to include provisions for independent parties to perform this work....The SDEIS should be revised to include provisions for an independent review board comprised, in part, of stakeholders to oversee and review all the future monitoring and related laboratory work.	PER24
11782	Who is responsible for the “pilot studies to be conducted to demonstrate the ability to transition to non-mechanical water treatment”? These studies should be funded by the Project Proposer but not implemented or overseen by the Proposer. State agencies or independent third parties should perform and supervise this work. A long-term compliance watchdog group should also have responsibility and oversight for this work.	PER24
16710	What are the provisions for water purification back-up while the RO plant is being serviced?	PD03
16712	What is the maximum volume of RO water processed/day? What is the estimated cumulative processing volume?	PD03
16714	Has the RO plant designed by Barr Engineering been piloted, and if so, where are the technical reports?	PD32
16741	The SDEIS does not address any predicted consequences of rock avalanches, including induction of earthquakes.	GT05
16743	The SDEIS does not address the role of extreme weather events in causing catastrophic landslides. The SDEIS provides insufficient address to extreme weather events in the Duluth Complex area.	PD11
16744	The SDEIS insufficiently addresses issues related to the potential for catastrophic failure of the mine pit walls or the consequences of such failure. The SDEIS does not indicate that NorthMet will employ any technology for early-warning monitoring and prediction of failures....[and] impact on surrounding properties	GT15, WR130, WR132

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sara Barsel (43009)		
16749	The SDEIS does not refer to use or literature discussion of any methods for forecasting big slides in other open mine pits this discussion or technology. The SDEIS provides inadequate reference to / analysis of extreme precipitation events in the immediate region of the NorthMet mine and processing site. NorthMet contingency plans are dependent on function of mine site infrastructure, which will likely be dysfunctional in the event of a catastrophic wall failure.	WR077, WR130, WR132, WR180
16788	The waters listed in Table 4.2.2-2 Impaired Waters within the Embarrass River and Partridge River Watersheds are listed as impaired for mercury and awaiting a TMDL (TMDL Target Date 2015). They are not included under the Statewide Mercury TMDL. For waters that are impaired but do not yet have a completed TMDL, the MPCA cannot allow any new or expanded discharge that may cause or contribute to the impairment. . . .At a minimum, this issue and concern should be addressed in a revised SDEIS. All relevant information should be provided and alternatives considered.	ALT13
16790	There is a statement in the SDEIS that the water quality model “performs probabilistic simulations, taking into account the uncertainty around many of the model input assumptions”. Please revise the SDEIS to address the following questions and concerns:Which model inputs included uncertainty? Which model inputs did not? Was uncertainty included in the other water modeling – groundwater and surface water?Was uncertainty addressed in a sufficient manner? For example, did the modeling inputs include the possibility of significantly increased rainfall for long periods of time (years or decades)?	WR189
<b>Sender Name (Submission ID)</b> Sara Harrison (39737)		
7067	I would like to know exactly how you plan to hold PolyMet accountable financially for a 500 year window of time, for any adverse environmental impacts from sulfide ore mining in the proposed area. There is no record of any company staying intact for that kind of time horizon. What evidence do you have that they have the commitment or the financial reserves to back-up their promises for this extended period of time?	FIN01
7069	what level of pollution are you going to deem 'acceptable,' in terms of runoff into adjacent rivers and lakes? What impact will that run-off have on fish, birds, wild rice, and wildlife in the region?	PER18
7079	How large of an area will the mining impact?	PD30
7083	What protections will be put in place to ensure that heavy metal contamination does not occur in the watershed surrounding the mining site?	WR130
7084	What level of ongoing monitoring will the DNR and EPA have? What regulatory teeth will you have to hold PolyMet accountable?	PER06
7093	the national and state trends have been to 'relax' environmental regulations, in favor of promoting a business- friendly environment. So, tell me, who will make sure we do not end-up with a 500 year window of unregulated pollution from this proposed mine? I would like to know who will sign their name to that pledge and back it up with the best environmental monitoring available now and in the future.	PER06
13021	I would like to know exactly how you plan to hold PolyMet accountable financially for a 500 year window of time, for any adverse environmental impacts from sulfide ore mining in the proposed area. There is no record of any company staying intact for that kind of time horizon. What evidence do you have that they have the commitment or the financial reserves to back-up their promises for this extended period of time?	FIN01
13027	As well, what level of pollution are you going to deem 'acceptable,' in terms of runoff into adjacent rivers and lakes? What impact will that run-off have on fish, birds, wild rice, and wildlife in the region?	WR110

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sara Harrison (39737)		
13028	How large of an area will the mining impact? What protections will be put in place to ensure that heavy metal contamination does not occur in the watershed surrounding the mining site? What level of ongoing monitoring will the DNR and EPA have? What regulatory teeth will you have to hold PolyMet accountable?	PD24, PD30
19866	We cannot afford to accept monitoring & clean-up of 500 years of water quality, protection, post-Polymet mining!	PD01
<b>Sender Name (Submission ID)</b> Sara Hill (39474)		
13426	Proper site management should be part of the cost of business, not a cost to taxpayers in Minnesota. Jobs are not a profit to Minnesota if Minnesota needs to pay any site maintenance or clean up.	FIN10
<b>Sender Name (Submission ID)</b> Sara Mairs (43851)		
11863	There are so few pristine wilderness areas left in our country and in the world. Doing anything for short term gain that would put this resource at risk is beyond my comprehension.	WILD02
11864	There is a long history of negligence on the part of mining companies, and I do not trust the integrity of any mining company to follow through on efforts to prevent known and unknown problems from occurring.	FIN01
14943	The only way to ASSURE the health and safety of both the ecosystems and the residents of this area is to NOT mine in the first place.	ALT13
<b>Sender Name (Submission ID)</b> Sara Roberts (33526)		
12317	This is a precious area that must be protected for all time so that my grandchildren and others' grandchildren can know wilderness and wild things.	WILD02
<b>Sender Name (Submission ID)</b> Sara Skalle (58061)		
19877	The long-term loss, damage and sacrifice outweighs the short-term benefits.	SO01
<b>Sender Name (Submission ID)</b> Sarah Alexander (10398)		
517	PolyMet does not seem to have a very clear proposal for dealing with containing waste created as part of the mining process.	PD15
519	Piling the tailings does not seem to be a practical or aesthetically sound solution. Run-off is going to be incredibly hard to contain, because it can easily seep into the groundwater and then lead to contamination of surrounding ground and surface waters.	WR056, WR057
521	However, the lifespan of the project is 20 years, and wastewater and other treatments could take over 500 years. There is no way that PolyMet can agree to and promise to be responsible for that length of time, as it is well over a human lifespan. This would then fall to the state, and future generations would have to pay for clean-up for years.	FIN01, FIN10
1458	This would be the first sulfide mining project in Minnesota, however other similar projects have all had issues with water contamination. To date, I do not believe there are any cases of sulfide mines that have operated without significant environmental impacts.	WR023
<b>Sender Name (Submission ID)</b> Sarah Betzler (38211)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sarah Betzler (38211)		
13691	Please consider that when chemical contamination and spills affect water resources in this less-than-wealthy area, and when ecotourism is reduced because of the water contamination and spoiled vistas, and when the mine closes and jobs disappear again, the residents in this region will be worse off than they are now.	SO01
13692	Regulation, job safety improvements, and promises by Polymet may soothe some worries, but I don't believe we have the rules or the enforcement capacity to solve most of these problems.	PER35
13693	The behavior of other mining companies causes me to doubt that Polymet will really take care of these people and clean up their mess. Please don't trust them to do the right thing - as our state government, it is your job to distrust those that might take advantage of us and our resources.	FIN01
<b>Sender Name (Submission ID)</b> Sarah E. Reed (43571)		
15696	I know there are many economic challenges in northern Minnesota and I don't have the perfect answer but I think there are other options that can bring numerous, skilled jobs to the Iron Range for the long term and won't threaten to turn the state's freshwater ecosystems into Superfund sites.	SO01
15697	most of the world's copper supply will soon be derived from copper recycling. Why not be forward-thinking and build copper (and other precious metal) recycling facilities in northern Minnesota? These could supply quality jobs for an indefinite amount of time with a drastically reduced level of environmental risk.	NEPA06
15698	PolyMet has simply failed to establish that its project can adequately mitigate the extensive and well-known risks associated with the mining of ore deposits with acid-forming minerals. Please do not risk adding northern Minnesota to the long list of acid mine drainage disasters.	GEN03
<b>Sender Name (Submission ID)</b> Sarah Heggstuen (9559)		
195	The jobs today are not worth the risk tomorrow.	SO01
966	the company can quickly declare bankruptcy and the cost of cleanup - if cleanup is even possible - will be left to taxpayers.	FIN01
968	It (PolyMet) threatens the wild rice, the water supply for 60,000 people.	VEG04, WR042, WR156
<b>Sender Name (Submission ID)</b> Sarah K Poznanovic (54687)		
17847	The Polymet SDEIS lacks sufficient detail pertaining to the economic impacts of the mine. Copper sulfide mining will negatively impact the environment and the SDEIS does not take into account the costs of environmental degradation.	PER03
17848	tourism, which is extremely important to the economy of northeastern Minnesota, will suffer. The proposed copper sulfide mine will certainly make northeastern Minnesota less desirable as a tourist destination.	SO02
17849	The Polymet SDEIS does not adequately address water pollution caused by the mine. ... A copper sulfide mine would significantly negatively impact water quality and many other natural resources in the BWCA and Lake Superior Watersheds. It is unconscionable to pollute water in our state with sulfuric acid and heavy metals for at least 500 years.	WR115
17851	The Polymet SDEIS does not address how accidents due to equipment malfunctions or extreme weather events will be dealt with.	PD22

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sarah K Poznanovic (54687)		
17853	The base flow values used by the DNR to model pollution discharge are much lower than actual discharge rates. Therefore, the predictions made with this model are inaccurate.	WR003
17854	the SDEIS fails to provide financial assurances from Polymet for monitoring, maintenance, and replacement costs.	FIN11
17855	There is no rush to accept an inferior EIS for copper sulfide mining in Minnesota. We should wait until sometime in the future when research and development have progressed enough to ensure impacts to the environment will be minimal.	ALT16
<b>Sender Name (Submission ID)</b> Sarah Kutzke (43840)		
11854	Minnesota is such a beautiful place. Ruining Minnesota's natural beauty and resources would be a huge mistake. Keep Minnesota beautiful and clean, please.	LU04
<b>Sender Name (Submission ID)</b> Sarah Malick (38456)		
9653	The mines will not only be an eyesore, they will also increase rail and truck traffic, which would negatively affect tourism in the area.	LU06
9656	Sulfide-bearing rock brought to the surface will turn into sulfuric acid and leach into our waterways, resulting in irreparable damage to our biotic community.	WR001, WR113
13612	The Boundary Waters Canoe Area Wilderness is America's most visited wilderness area and one of the oldest designated wilderness areas in the nation. Despite what proponents of the copper-nickel mines say, creating new mines within 50 miles of Ely would be extremely detrimental to our local economy.	SO01
13613	The noise from drilling and moving material destroys the wilderness experience on the southern end of the Wilderness area near Spruce Road and Birch Lake.	N02
13614	there is no evidence that our most precious resource, the interconnected system of pristine waterways, will adequately be protected. Acid mine drainage in our waters is unacceptable.	WR111
<b>Sender Name (Submission ID)</b> Sarah Musgrave (44687)		
7169	The wetlands that will be removed are not replaced in the same watershed and the whole issue is not addressed and seem of little concern to everyone.	WET03
7170	Removing the wetlands will cause increased pollution into another great natural resource.	WET24
7175	Also the vast amount of water needed to mine will cause damage to the ecosystem.	WR115
7176	Because of climate change it is creating draught or flooding conditions.	WR180
7178	Also the vast amount of water needed to mine ... could cause water shortages.	WR181, WR182
<b>Sender Name (Submission ID)</b> Sarah Nelson (39178)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sarah Nelson (39178)		
15508	We must take good care of our resources - and this mine project looks just disastrous for our fresh water. 500 years or more of pollutants leaching into the ground water and our waterways?	WR195
6757	you've heard all the environmental risks - both imminent and long term..... A handful of jobs, for a host of certain damages to our fresh water.	SO01
6773	the immediate and potential future water pollution problems are just too great. We don't want the short term damages to our beautiful fresh waters and critical aquifers, and we definitely don't want the long term damages	WR195
12279	Perhaps we need to invest some resources into retraining underemployed residents of northern Minnesota. That would be far more cost effective than selling off our beautiful northland resources to a corporation that might not even exist in 20 years.	SO01
12937	A handful of jobs, for a host of certain damages to our fresh water. In 10 or 20 years, the company will have made their profits and be gone. Minnesota will be left with all the costs.	SO01
13478	In 10 or 20 years, the company will have made their profits and be gone. Minnesota will be left with all the costs.	FIN01, FIN10
14143	In 10 or 20 years the company will have squeezed as much profit as they can from the site and be gone. Minnesota, will be left with all the costs.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> sarah nevins (43474)		
15545	[Mining in this area] would (if allowed) destroy the vital and vibrant tourism economy in northern Minnesota.	SO02
15546	It would jeopardize the Boundary Waters Canoe Area Wilderness -- not only environmentally, but it would impact every activity tourists partake in; from sightseeing and wildlife viewing to hunting, trapping and fishing.	WILD02
15548	Part of the plan is to "monitor and treat polluted water for 500 years" ? This is simply not feasible. A project that openly plans to pollute fresh water for that long should never be allowed. ... This proposed project would affect all of the Lake Superior Basin, sulfuric acid in the lake will not stay in one place as you certainly know.	WR037, WR128
17055	Part of the plan is to "monitor and treat polluted water for 500 years" ?.... A project that openly plans to pollute fresh water for that long should never be allowed.... reject the exchange of Superior National Forest land that would allow the project to move forward, and deny the Section 404 permit.	COE03
<b>Sender Name (Submission ID)</b> Sarah Oppelt (36615)		
3810	The mine will provide relatively few jobs for a relatively short amount of time with very likely significant environmental impacts.	SO01
3812	If the mine is approved, please do ensure that there are significant financial assurances in the permitting process. It is important to me as a Minnesotan that there is enough money to deal with contamination problems when they do arise to minimize the impacts on our precious waterways and land.	FIN05, FIN08
<b>Sender Name (Submission ID)</b> Sarah Schaefer (54560)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sarah Schaefer (54560)		
18965	Polymet’s proposal will leave cleanup for 500 years at its lowest proposed timeframe. This is likely a bill that will be paid by Minnesotan tax-payers. Despite claims that this project will create jobs and revenue, only 100 jobs in 20 years of its existence will be for in-state workers and only approximately 1% of revenue will stay in-state.	SO01
<b>Sender Name (Submission ID)</b> Sarah Sigford (54648)		
17988	Polymet has acknowledged 500 plus years of pollution control is not uncommon, but we don’t see a plan or money for dealing with that scale of problems.	FIN05
17990	Our tax dollars are already going to clean up for the watersheds of many of these rivers that will be polluted. How can we justify continuing to degrade them? This project will be the first of its kind if it passes in MN. We need to set precedent that MN cares more for our water and wilderness. Exchanging precious wetlands, wildlife corridors, and moose habitat is not worth the 20 years of potential jobs.	WR107, WR108
17992	We have no guarantee that Polymet will abide by regulations set forth and we have no guarantee that other agencies and government will properly enforce these regulations. We’ve seen no evidence that reserve osmosis will provide to work with added pollution and chemicals that would be present in mine waste.	PD01, PD03
<b>Sender Name (Submission ID)</b> sarah stonich (45929)		
10359	There's .5 ounce of copper in your cell phone - if every time we bought a cell phone we included 5 pennies for the manufacturer in our payment - that would cover it. A computer, perhaps 30 pennies .... So, how about we eliminate the penny as currency and collect the pre 1983 all-copper pennies for manufacturers needing copper? Too simple? Not really.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> sbarkema (7201)		
546	The people behind this6 push have only one thing on their mind. \$\$\$\$\$\$ They will do anything and promise anything to get this started. The damage it WILL cause and the pollution it will create now and for hundreds of years are what we and our next generations will have to live with long after the \$\$\$\$ has disappeared.	SO01
548	The HUGE potential for additional damage and problems that can happen once this project gets the go ahead is in no way feasible for the few temporary jobs they SAY will be made.	SO01
<b>Sender Name (Submission ID)</b> Scarlett Antcliff (11520)		
2472	I need not sulfide mineWhy1.I need clean water to swim in2.The fish need it clean3.The other forest creatures need clean water to drink	HU01, WR195
2472	I need not sulfide mineWhy1.I need clean water to swim in2.The fish need it clean3.The other forest creatures need clean water to drink	FIN08, FIN05
<b>Sender Name (Submission ID)</b> Schmidt Michael (17371)		
1974	Even with a very large bond posting by the company or industry I do think support this type of a destructive industry in Minnesota.	FIN05, FIN10
2100	This time of mining appears to be a boom-bust proposition with so much potential for immediate and ongoing pollution and industrial damage to the environment of this beautiful natural and tourist area.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Scot Dauner (57256)		
17392	There is no track record of a pollution free solution for the type of mine and it is right next door to the BWCA. I don't believe one but that anyone is going to sign up to clean water for 200 to 500 years.	PD26
<b>Sender Name (Submission ID)</b> scott anderson (9473)		
8156	this 480 years who will pay for the containment of the toxic water. Tax payers...What if polymet goes bankrupt to get out of their commitments. Then the tax payers will be held accountable.	FIN01
9788	I do not understand why 300 jobs for 20 years is more important than clean water. This mine will play out in 30 years.	SO01
10650	The containment plan of this toxic water, does it take into account large rains, like in june of 2013, the 100 year rain.	WR057, WR077, WR180, WR193
11906	I do not understand why 300 jobs for 20 years is more important than clean water. This mine will play out in 30 years while the water has another 480 years before it might be non-toxic.	SO01
11907	The containment plan of this toxic water, does it take into account large rains, like in june of 2013, the 100 year rain	PD22
11908	[In] 480 years who will pay for the containment of the toxic water...What if polymet goes bankrupt to get out of their commitments. Then the tax payers will be held accountable.	FIN01
13274	the water has another 480 years before it might be non-toxic. this 480 years who will pay for the containment of the toxic water. Tax payers.	FIN10
13275	The containment plan of this toxic water, does it take into account large rains, like in june of 2013, the 100 year rain.	WR057, WR077, WR180, WR193
13276	What if polymet goes bankrupt to get out of their commitments. then the tax payers will be held accountable.	FIN10
<b>Sender Name (Submission ID)</b> Scott Bennett (44180)		
9808	PolyMet's web site claims that water that will be discharged from its project site would never enter the Boundary Water Canoe Area Wilderness lakes or streams. In reality, however, hydraulic conductivity testing is needed to determine the actual effect of acid mine drainage into the waterways on the edge of the Boundary Waters.	WR024, WR071, WR081, WR111, WR175
9815	the SDEIS have used incorrect maps which contradict the US National Atlas watershed map... Significantly, the SDEIS claims that there is no delineated boundary for One Hundred Mile Swamp... Without hydraulic conductivity testing and measurements, PolyMet has no way to show that water entering One Hundred Mile Swamp will not then flow into Rainy Lake in the BWCA watershed.	WR024, WR071, WR080, WR081, WR111, WR175
9819	There has been no baseline water testing in the Dunka River, Langley Creek, or anywhere else in the Rainy Lake watershed. Without such testing in the Rainy Lake watershed, there is no way to gauge the possible harm to the BWCA and Quetico from PolyMet mine drainage.	WR085
14890	the National Atlas shows a 10-mile-long wetland that drains to both the St. Louis River and BWCA watersheds, the most recent SDEIS maps depict the One Hundred Mile Swamp as only six miles long, and as existing only on the St. Louis River side of the divide.	WR024, WR071, WR080, WR081, WR111, WR175

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Scott Bennett (44180)		
14891	PolyMet must be required to correct its SDEIS to include accurate watershed mapping, with hydraulic conductivity testing in One Hundred Mile Swamp, with water quality testing for the BWCA watershed, and with a data-based statement of the impact of the proposed mine on BWCA water quality.	PD29
<b>Sender Name (Submission ID)</b> Scott Bol (18134)		
3458	I would want us to make sure we have all of our stockholders and all of our investors in PolyMet to make sure that they are going to be accountable and not for five years, but for decades, and we start looking at a tremendous amount of years.	FIN02, FIN04
13513	So we have 500-year storms, we have 100-year storms every few years. So when we have seepage from the holding pits, they could flood and that could be a tremendous problem.	WR057, WR077, WR180, WR193
<b>Sender Name (Submission ID)</b> Scott Cramer (19869)		
1421	Mining is a highly disruptive activity that will cause hundreds of years of monitoring and clean up after all the ore is gone. Otherwise, we face wide scale water pollution.	GEN01
14825	What will we leave for the future generations. Will America fall apart if we leave this copper in the ground? Might it be possible that 100 years from now a safer, cleaner, cost efficient method of mineral extraction will have been found ? Don't we believe that leaving waste dumps and mine pits leaking toxic chemicals is no gift but rather a poison pen letter to our future offspring.	SO01
<b>Sender Name (Submission ID)</b> Scott Daby (38886)		
5399	The potential long-term negative environmental impacts far outweigh the potential short-term economic gains.	SO01
<b>Sender Name (Submission ID)</b> Scott Duffy (51611)		
3657	The DNR/EPA is asking the public to read, digest, and comment on a 2300 page Environmental Impact Statement in 90 days. What is the rush? Give the public the time it needs to fully look over the report. This is a decision that will not only affect us, it will affect future generations for hundreds of years to come. I urge you to extend the comment period.	NEPA07
9867	The DNR/EPA is asking the public to read, digest, and comment on a 2300 page Environmental Impact Statement in 90 days. What is the rush? Give the public the time it needs to fully look over the report. This is a decision that will not only affect us, it will affect future generations for hundreds of years to come. I urge you to extend the comment period.	NEPA07
10742	The EIS makes no mention of the air quality of the immediate area surrounding the project site. How will this project affect the air quality of the surrounding area?	AIR07
10745	The EIS makes no mention of the effects on Moose and moose habitat that this project will have. How much moose habitat will be destroyed with this project?	WI01, WI02
10748	The EIS makes no mention of what contingencies are in place to protect the mine site if this type of event [500 yr flood] should happen.	WR130
10751	How much pollution is the question. What happens if it is discovered that the mine site is leeching sulphur and other pollutants into the groundwater? Who is going to pay for the cleanup costs?	FIN01, WR128

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Scott Duffy (51611)		
10753	What will happen to the surrounding wildlife?	WI01
10754	What will happen to the largest (and cleanest) freshwater lake in the world?	WR111
10755	What happens if these events occur after the mine is closed? How can a company possibly give financial assurances for 200-500+ years in the future? Do we really want a superfund in this state?	FIN01
<b>Sender Name (Submission ID)</b> Scott Francis (44585)		
11820	The amount of short term benefits are vastly outweighed by the massive implications that the mine could have in the future.	SO01
11822	Even though the PolyMet corporation claims responsibility for the clean up, how can we as minnesotans make sure that a brand new mining corporation will last 500 years into the future to continue the clean up process.	FIN01
11824	The mine also is poised too close to the spectacularly preserved boundary waters area. Ruining that area through exploitation of the natural resources shows a lack of forethought and planning for the future.	WILD02
<b>Sender Name (Submission ID)</b> Scott Helgeson (18159)		
13309	What assurances are we going to have that this is going to be a long-term financial commitment to take care of our water and our natural resources for 500 years.	FIN01
<b>Sender Name (Submission ID)</b> Scott Hochhalter (40911)		
7040	This mining operation has serious environmental consequences. And in my opinion, not enough jobs created to validate the destruction of the land, water, and habitat. PolyMet itself has said it could take up to 500 years to clean up the toxic mess this kind of mining creates.	SO01, WR035
<b>Sender Name (Submission ID)</b> Scott Kylander-Johnson (43831)		
11838	As a life-long Duluthian I am already loaded up with heavy metals according to results from my blood work. How will PolyMet make the Duluth area any better?	HU03
14952	I don't care about a few jobs and a majority of money that will head to other countries thanks to a few minerals extracted from this area. It is time for the government to begin looking out for the people and all life on the planet.	SO01
<b>Sender Name (Submission ID)</b> Scott Lombardo (35764)		
11288	What bond and in what reasonable amount can be required to compensate this and future generations of Citizens for the problems that NorthMet is likely to create for our planet?	FIN05, FIN08
<b>Sender Name (Submission ID)</b> Scott Long (45548)		
11589	We love this area and do not want to see anything implemented that could pollute the clean water that is so special to the area or make it harder for our special animals like the Lynx, Moose and Wolves to survive	WI01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Scott Long (45548)		
15884	We understand that this would bring many jobs to northern MN to people who really do need those jobs but we feel it cannot be at the expense of possibly long term harm to the waters of the BWCA and its environment plus to nearby areas as well as pollution travelling the rivers to other areas.	WR111
15885	It seems that testing and long term projections concerning the toxic byproducts of this mining are not adequate and do not take into consideration every possible reach and scope of this pollution. From what we have read, it seems the studies may be unrealistically optimistic.	PD32
15886	In addition to or as a result of the ground and water pollution, the mine would destroy many acres of ecosystems for many wildlife species that are very special to Minnesota as well as destruction of wetlands and important vegetation. These are the things we and the many tourists who come here come to see.	VEG03, WET24, WI02, WR115
15887	Getting isolated pieces of land in exchange is nearly worthless to the experience of the visitor who goes to the Superior National Forest to camp and hike and fish and see wildlife and just experience peace and quiet.	LAN06
15889	if Polymet ceases to exist or just gets out of cleanup once it is done mining, then it is up to the state and the taxpayers of the state to continue with the cleanup and that would have a negative impact on all of us who live in Minnesota.	FIN01
<b>Sender Name (Submission ID)</b> Scott Mead (11594)		
2252	With treatment required for 500 – may be more, how can we be guaranteed that the mining CO’s will even care what happens?	PD24
2252	With treatment required for 500 – may be more, how can we be guaranteed that the mining CO’s will even care what happens?	PD24
2253	The money put up for discharge treatment is grossly inadequate. It is quite obvious that the taxpayers will be on the “hook” again.	FIN05, FIN10
2253	The money put up for discharge treatment is grossly inadequate. It is quite obvious that the taxpayers will be on the “hook” again.	FIN05, FIN10
2254	What measures can be done when the discharge containment fails?	WR132
2254	What measures can be done when the discharge containment fails?	WR132
12242	I am concerned that we, in the US, are bending over backwards to accommodate a foreign mining company that has a very good chance of polluting NE MN for many centuries...If this project will create a few jobs, why are other established industries/business going to be negatively affected? Logging. Recreation. Tourism. Local business. Local residents.	SO02
12243	The amount of water used/consumed was grossly under stated in the SDEIS. The actualwater used will change the figures used for water treatment. Even using Poly Met’s figures, the water used will deplete some aquifers and there is a threat of contamination in other aquifers.	WR181, WR182
12247	PolyMet isn't even sure how to handle the residue...The dams, dikes, pumps, and pipes will last 500 years? Of course not. A no to each item.Long term maintenance wasn't address or was inadequately addressed.	PD01
12249	Wetlands that will be destroyed are very unique and cannot be replaced or renewed. How can you replace a peat bog that is tens of thousands of years old?	WET24

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Scott Mead (11594)		
17492	The MN DNR is aware that the modeling used regarding water quality was flawed.	WR189
17493	The reverse osmosis is not a proven process and has only been "tested".	WR143
<b>Sender Name (Submission ID)</b> Scott Moen (43127)		
14121	if polluted seepage ruins fragile and pristine wilderness, how will money solve the problem?	FIN11
<b>Sender Name (Submission ID)</b> Scott Polyner (10711)		
1471	Having read the SDEIS, I am confident that the involved agencies will hold this project to those same standards that allow us to have the largest taconite mines in the USA and still have the cleanest water in Minnesota.	PER34
1472	I believe the MPCA, the DNR, and the Army Core of Engineers will adapt and overcome any issues that arise.	PER34
<b>Sender Name (Submission ID)</b> Scott Robertson (7332)		
17	what level of wastewater containment failure they would find acceptable?	WR021, WR022, WR129, WR144
<b>Sender Name (Submission ID)</b> Scott Slocum (3639)		
426	It is clear to me that the Supplemental Draft Environment Impact Statement (SDEIS) prepared by PolyMet Mining, Inc. is not sufficient to avoid the dangers of sulfide-ore mining in Minnesota.	NEPA09
<b>Sender Name (Submission ID)</b> Scott Weappa (42788)		
6869	I am supportive of the Polymet Project. It will bring needed jobs to the area. With a new precious metals mine in our area it would help balance our economy with the ups and downs of taconite mining. The only way I will not support this project if it cannot be done in a safe manner. I put my trust in the governing bodies to decide this issue.	SO10
<b>Sender Name (Submission ID)</b> Scott Wolff (46992)		
10895	I would like to know who is responsible if something goes poorly. Specifically I would feel much better if individuals at the upper level of the Polymet hierarchy have something personally at risk, "skin in the game" if you will.	FIN01
<b>Sender Name (Submission ID)</b> Scott Wolla (21814)		
9551	The Polymet project is important to the economy of northern Minnesota, and the U.S. economy. The natural resources found here are important to our economic vitality.	SO10
<b>Sender Name (Submission ID)</b> Sean Engel (42837)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sean Engel (42837)		
7337	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	NEPA16, SO10
7337	I believe that due diligence has been served; the public and the environment have been protected by a joint effort of MDNR, US Dept. of Forestry, EPA, and Polymet. To the greatest extent possible the environment will be protected throughout this project and with that there will be a revitalization of the northern Minnesota economy especially in the iron range.	SO10
<b>Sender Name (Submission ID)</b> Sean Piette (39592)		
13531	Sulfide mining is a very dangerous mining and Minnesota does not care for mining. There is, never has been, and probably never will be a clean, environmentally damage free mining.	SO01
<b>Sender Name (Submission ID)</b> Sen. John Marty (42961)		
3843	[T]he modeling in the draft arbitrarily stops at 200 and 500 years, despite the fact that those models show that the water will still require treatment at that point. The models in the SDEIS need to be amended to project out to the point in time where the water meets Minnesota's water quality standards, even if that is many hundreds of years further into the future. The difference between 200 years and 2000 years might seem to be an insignificant point to a business that may not be around in 50 years, but to the state, which would otherwise be forced to pick up the costs of virtually perpetual water treatment, it is an important distinction.	WR035, WR036
3844	The SDEIS needs to factor in failures in water treatment systems. Breakdowns in pumps, power failures and other unforeseen problems are not hypothetical. Over a period of hundreds of years, these failures will be a reality. Pumps and other treatment infrastructure, even ones designed to last for thirty or more years, will break down and wear out repeatedly, and there is a need for backup systems to deal with these contingencies as they periodically occur.	WR129, WR131
3845	The financial assurance details cannot be worked out in closed-door meetings at some later date. The SDEIS is not adequate until it includes the details about how much money will be required to pay for cleanup and in what form it would be held. The public has a right to know and review what is all included in that number to ensure that it is sufficient, bankruptcy-proof, and will be available long after those who have profited from the project are gone.	FIN01, FIN05, FIN08
<b>Sender Name (Submission ID)</b> Sen. Bev Scalze (9578)		
215	We should wait for technology to be developed to offer the possibility of mining them without the accompanying destruction that future generations will pay for.	PD32
1129	I am in favor of an additional user fee for the BWCA that would be shared with the residents of the area to compensate for their not getting the 300 some jobs that come with the destruction of the area.	SO06
<b>Sender Name (Submission ID)</b> Senator Al Franken (47597)		
3595	The NorthMet copper-nickel mining project offers the opportunity for a new type of mining that will also have a significant economic impact on the region and help to diversify the local economy.	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Senator Al Franken (47597)		
3596	[T]he project is expected to create over 500 construction jobs and 350mining jobs on the Iron Range.	SO10
3597	Importantly, developing these precious metal resources will reduce our dependence on foreign imports.	SO10
3598	At the same time, some have voiced concerns about the environmental impact of copper-nickel mining, and particularly about its impacts on our precious water resources.	WR115
3599	In addition, citizens in our state want to know that the cost of future environmental remediation efforts will be covered by project developers.	FIN05
3600	I have been encouraged to see the company working closely with a diverse set of stakeholders, including the Environmental Protection Agency, the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, the U.S. Forest Service, the Army Corps of Engineers, and area tribal communities in order to put together a plan. And as the Supplemental Draft Environmental Impact Statement is finalized, it is important that any legitimate concerns be adequately addressed.	NEPA16
3601	I have confidence in state and federal agencies working with industry to complete the environmental review process...As the Supplemental Draft Environmental Impact Statement is finalized, I therefore urge you to ensure it is done in a way that is consistent with state and federal environmental laws, and in a manner where tax-payers are protected from future environmental remediation costs.	PER34
<b>Sender Name (Submission ID)</b> Serina Gebrehiwet (54181)		
16425	The water is going to become polluted. The boundary waters are important to the area that you are going to destroy. It is very popular in Minnesota so it should be kept with us.	WR111
16427	You can mine somewhere else less important. The affects are too negative and copper and nickel can be found elsewhere.	ALT13
16428	This mine has been done in other lakes and rivers and the negative affects they have on the environment. It hurts the ecosystem. The acid will throw off the PH balance and kill life in the water.	WR023, WR113
<b>Sender Name (Submission ID)</b> Shandra Thao (54231)		
16802	The SDEIS map have mislead the public. The map of the swamp has cut off half of the one hundred swamp diverting everyone from the fact that the BWCA will be completely unprotected from the acidic drainage of the mine.	PD38
16804	[The NorthMet mine] will provide jobs; an economic boost but how many people know that less than 2% of the water on earth is pure water? Before we know it, there will not be any pure water left! Are they willing to take this risk knowingly? This needs to be fixed because they are misleading the public.	SO01
<b>Sender Name (Submission ID)</b> Shane Johnson (44620)		
12086	I have reviewed the SDEIS for the Polymet Project, and fully approve of the proposed processes and mitigation systems as well as the science used in designing them, and ultimately constructing them.	PD28

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Shane Johnson (44620)

12088 I also believe from an economic standpoint, that expediting the current processes so Polymet could begin construction immediately would bring a desperately needed, immediate economic boost to the Iron Range, not to mention the added benefit of more public lands, through the land exchange.

SO10

**Sender Name (Submission ID)**    Shannon Martin (18277)

13989 I think 500 years of water pumping and treatment is not a good trade-off for 20 years of jobs. I think one of our top priorities in the state should be the state protecting our natural resources in the long run.

SO01

**Sender Name (Submission ID)**    shari smith (48065)

17350 I believe the environmental review process has been sound and thorough. The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all state and federal regulations.

NEPA16

**Sender Name (Submission ID)**    Sharlyn Dahl (57502)

19566 I... have total confidence that Polymet has done everything possible to make their operation safe for our environment now and for my grandchildren. I can not believe that with all the time and studies that have been made and proven, that there should be any question of this. Polymet will be an extremely great benefit to our area, and to the state as well.

SO10

19568 With all of the time and money that has been and is being spent on environmental issues, I have full confidence that all it will be an environmentally acceptable mining operation. The permitting process takes a ridiculously long time.

PER20, PER34

**Sender Name (Submission ID)**    Sharon Angell Magliulo (21228)

896 • Inadequate cumulative impacts and effects. "Past, present, and reasonably future actions" are not included. Public needs to be informed that this is the beginning of a sulfide-mining district in the lake country of the Arrowhead. The NorthMet Mine and other proposed sulfide mining projects would be in the Duluth Complex, not on the IronRange; this is not being addressed.(...) • The impacts from the tremendous amount of coal-fired electricity used to operate a sulfide-mining district (or one sulfide mine on top of taconite mining releases) are not adequately addressed.

AIR02, CU01, CU04, PD39

899 • The hydrology is flawed. Poor comparison to the Canisteo Pit. Not the same geological formation; not the same depth; inadequate test borings.(...) • The SDEIS is flawed in its determination of faults and fractures.(...) • This type of mining has never been done successfully in this type of water environment.

WR012, WR023

902 • National Forest Land must not be exchanged. The Weeks Act protects the land. Also, the exchange does not adequately compensate the American Public for loss of this land. The exchange will have a significant effect on wildlife habit and corridors, loss of wetlands and wetland functions (inadequately addressed), as well as overall ecological quality.

LAN02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Sharon Angell Magliulo (21228)	
905	• There is no “500 year event” at the core of the SDEIS. An SDEIS based on a hundred year event is insufficient.(...)• The LTV tailings basin is unstable and leaking. The SDEIS underestimates the amount of leakage. There are faults and streams running under the basin that the SDEIS does not address.(...)• The SDEIS is flawed in the areas of water exceedances and rates of water flow. Conclusions are incorrect. One year of documentation is insufficient for water flow.(...)• The SDEIS is flawed in its determination of the amount of seepage collected and treated, as well as its levels of toxicity. It is seriously flawed in its assessment of seepage that escapes untreated. (...)• The reverse osmosis plan is insufficient and unproven on the scale involved. Sulfate removal is overestimated. None of Minnesota’s taconite mines have found reverse osmosis to be feasible. The Eagle Mine in Michigan is already having problems.	WR017, WR018, WR051, WR056, WR071, WR104, WR128, WR132, WR180
924	• There are no elucidated plans for unforeseen events; repeatedly saying that the company and agencies will deal with incidents as they arise is not only unacceptable, it is negligent. Not having back-up plans spelled out and included as part of the SDEIS makes this document incomplete.(...)• Sulfates: the effects on wild rice, on newborns in the Lake Superior basin due to mercury levels in fish, and other related ecological impacts need to be better understood and addressed before any sulfide mine is permitted. • Ecological affects of extensive limestone treatment on an entire ecosystem need to be addressed. • Chlorides are insufficiently addressed, essentially ignored.	PD22, PD34
13833	• Climate change is not addressed. Carbon based energy used to do this type of mining is irresponsible. PolyMet alone would emit 707,342 metric tons of carbon dioxide each year.	AIR01
13834	• There is no cost benefit analysis.(...)• In the best interest of the people of Minnesota financial assurance needs to be part of the public comment period, with transparent and complete information provided.	FIN13
13844	• Perpetual treatment or any long-term treatment after closure is unacceptable; a mine is to be maintenance free under Minnesota Rules.	PER04
13845	• The Regional Copper Nickel Study is forty years old. Still valid. However, additional studies need to be done in this decade before any sulfide mine permit is issued.	NEPA14
16258	Inadequate cumulative impacts and effects. “Past, present, and reasonably future actions” are not included. Public needs to be informed that this is the beginning of a sulfide-mining district in the lake country of the Arrowhead. The NorthMet Mine and other proposed sulfide mining projects would be in the Duluth Complex, not on the IronRange; this is not being addressed.	CU01, CU02, CU04
16259	There is no cost benefit analysis.	SO07
16260	The LTV tailings basin is unstable and leaking. The SDEIS underestimates the amount of leakage. There are faults and streams running under the basin that the SDEIS does not address. ... The SDEIS is flawed in its determination of the amount of seepage collected and treated, as well as its levels of toxicity. It is seriously flawed in its assessment of seepage that escapes untreated.	WR010, WR018, WR019, WR060, WR071, WR090, WR099, WR104, WR108
16261	The hydrology is flawed. Poor comparison to the Canisteo Pit. Not the same geological formation; not the same depth; inadequate test borings. ... The SDEIS is flawed in its determination of faults and fractures.	WR071, WR086, WR119
16262	National Forest Land must not be exchanged. The Weeks Act protects the land. Also, the exchange does not adequately compensate the American Public for loss of this land. The exchange will have a significant effect on wildlife habit and corridors, loss of wetlands and wetland functions (inadequately addressed), as well as overall ecological quality.	LAN02
16263	There is no “500 year event” at the core of the SDEIS. An SDEIS based on a hundred year event is insufficient.	PD01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sharon Angell Magliulo (21228)		
16264	The SDEIS is flawed in the areas of water exceedances and rates of water flow. Conclusions are incorrect. One year of documentation is insufficient for water flow.	WR047, WR048, WR109
16265	The impacts from the tremendous amount of coal-fired electricity used to operate a sulfide-mining district (or one sulfide mine on top of taconite mining releases) are not adequately addressed.	PD39
16266	Climate change is not addressed. Carbon based energy used to do this type of mining is irresponsible. PolyMet alone would emit 707,342 metric tons of carbon dioxide each year.	AIR01
16267	Sulfates: the effects on wild rice, on newborns in the Lake Superior basin due to mercury levels in fish, and other related ecological impacts need to be better understood and addressed before any sulfide mine is permitted.	MERC02, WR157
16268	Ecological affects of extensive limestone treatment on an entire ecosystem need to be addressed.	PD34
16269	Chlorides are insufficiently addressed, essentially ignored.	WR025
16270	The reverse osmosis plan is insufficient and unproven on the scale involved. Sulfate removal is overestimated. None of Minnesota's taconite mines have found reverse osmosis to be feasible. The Eagle Mine in Michigan is already having problems.	WR023, WR143, WR149
16271	There are no elucidated plans for unforeseen events; repeatedly saying that the company and agencies will deal with incidents as they arise is not only unacceptable, it is negligent. Not having back-up plans spelled out and included as part of the SDEIS makes this document incomplete.	PD22
16272	The Regional Copper Nickel Study is forty years old. Still valid. However, additional studies need to be done in this decade before any sulfide mine permit is issued.	NEPA15, WR023
16273	Perpetual treatment or any long-term treatment after closure is unacceptable; a mine is to be maintenance free under Minnesota Rules.	PER04
16274	In the best interest of the people of Minnesota financial assurance needs to be part of the public comment period, with transparent and complete information provided.	FIN13
16275	This type of mining has never been done successfully in this type of water environment. ... Water must be, and is, protected by Federal law. NO ACTION ALTERNATIVE	WR023
<b>Sender Name (Submission ID)</b> Sharon Barnett (57936)		
19859	I support the No Action Alternative.	NEPA15
<b>Sender Name (Submission ID)</b> Sharon DeCelle (32919)		
12135	Open pit sulfide mining is destructive and polluting. It is not in the public interest. Please do not approve the destruction of our environment.	SO02
<b>Sender Name (Submission ID)</b> Sharon Frykman (39958)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) Sharon Frykman (39958)</b>		
7733	The wastewater will travel by the St. Louis river to Lake Superior. If the water treatment starts out effective, which is doubtful, you still can't tell us that PolyMet will be able to continue treatment for 200 to 500 years! This is absurd! It will affect the quality of life for multiple future generations....Lake Superior is presently one of the largest sources of fresh clean water.	WR037, WR111, WR144, WR195
7737	There will be destruction of forest, plant, and wildlife habitat, as well as, the destruction of wildlife corridors. The moose and lynx are already threatened.	VEG03, WI01, WI02, WI03
7741	There will be air pollution from fine mineral fibers and dust. Greenhouse gas emissions are a major concern.	AIR03
7766	The trade-out for wetland mitigation is outside of the St. Louis river basin.	COE01
7772	The Arrowhead Region's economy is tourism based. The pristine forests and lakes are our livelihood and why we choose to live here.	SO02
<b>Sender Name (Submission ID) Sharon Krumme (58118)</b>		
19946	Need more information in the 100 mile swamp, the flow of water (waste) through Dunka to the BWCA...Flow of water on the Patridge River – need new results on the details and usage of this flow...A plastic sheet over waste rock pile – that is suppose to contain seepage – proof that this would work and why...More concise details of how the damage deposit will be adequate	GEN03
<b>Sender Name (Submission ID) Sharon Lane-Getaz (42904)</b>		
7727	Northern Minnesota is the site of 3 major watersheds. We and many states downstream from us need fresh, clean water.	WR111
7746	Per Renee Richardson of the Brainerd Dispatch (January 30th, 2014) , “once mining operations are done, mechanical water treatment at the site is proposed for 200 years at the mine site and 500 years at the plant site. The state reported it’s unknown how long water treatment would be required other than to say long term.”	WR035
7757	Northern Minnesota should not extend mining rights to an outside corporation that cannot realistically provide stewardship for our water nor our environment.	SO02
7759	Kathryn Hoffman, staff attorney with the Minnesota Center for Environmental Advocacy, said “the process to treat the water is complex, requiring multiple systems to work successfully and a mine in Michigan using a state-of-the-art reverse osmosis plant to do just that has already had more than 40 permit violations for not meeting water quality standards.”	WR128, WR143
7764	While jobs are important, we may be talking about as few as local 90 jobs in the balance compared to 500 years of ongoing water treatment... “PolyMet project is expected to create 360 jobs...after experts in the mining field are imported the site will create about 90 local hires.”	SO01
<b>Sender Name (Submission ID) Sharon Legg (43727)</b>		
12667	how will a mining company be able to control the sulfides reacting to air and water as they are exposed, as they are uncovered in the pits. I realize that the waste will be encapsulated in the waste piles, but what happens before the waste is transferred to that site? Obviously, exposing acres and acres of rock which contain these sulfides, will impact air and water quality. There will be dust and there will be seepage...not all of the water can possibly be captured and the air will travel with dust in it.	AQ04, WR025, WR134, WR151

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sharon Legg (43727)		
12672	I understand that there should be some financial assurance from the company to avoid taxpayers having to fund clean-up efforts in the future. I am concerned as to how anyone can come up with the amount necessary. How can we know? And, what discount rates will be used? We are unsure of how many years we are even trying to project the needs for these funds to become available. How can we possibly know what costs will be at some unknown date?	FIN01, FIN05, FIN08, FIN10
12675	If the State of Minnesota was dealing with a known commodity, a company (Polymet) that actually had experience in this type of operation and that was not being funded by a company (Glencore) that clearly has a bad reputation, there could be hope that past practice would indicate a positive future outcome. In this case, neither applies.	SO02
<b>Sender Name (Submission ID)</b> Sharon Lindberg (54126)		
15997	The mining process & its clean-up has never successfully prevented environmental problems before.	PD01
15998	Contaminated water still must be dealt with!!	WR129
15999	Unless PolyMet is willing to put one billion dollars up front for the eventual clean up, this copper mineral mine should not be dug.	FIN05
<b>Sender Name (Submission ID)</b> Sharon Meister (45787)		
16349	I don't see how anyone can assure us that the water used in the processing of this mine will not leach into the surrounding surface or ground water.	WR115, WR195
<b>Sender Name (Submission ID)</b> Sharon Wehner (16142)		
9680	Allowing the proposed mine to operate is to great a risk at any time to our water supply, the ground and bogs, and health issues that would follow, from such an insult to the environment.	HU03, WR042, WR111
<b>Sender Name (Submission ID)</b> Sharon Koll (47342)		
12225	It is not worth the jobs promised - - -to destroy any part of our heritage.This proposal is just a precedent. There are more of the same pending.I've read parts of the proposal. I can give you specifics when needed. This proposal will:* destroy our heritage * destroy Minnesota tourism * set a precedent	SO01
<b>Sender Name (Submission ID)</b> Shary Hess (42533)		
15581	I believe Polymet has gone far and beyond to assure a safe environment with this project and I believe the agencies have done a great job. It is time to move forward with the Polymet Project.	PER34
<b>Sender Name (Submission ID)</b> Shary Zoff (43045)		
12207	This letter is asking you to reject the porposed PolyMet Land Exchange. PolyMet is proposing that the Superior National Forest swap 6,650 acres of high quality land in the Partridge River headwaters for lower quality land scattered throughout NE MN. The deal may be good for PolyMet but breaking up large pieces of acreage into scattered pieces does not serve the ecosystem well.	LAN03

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Shary Zoff (43045)		
12208	This also violates the 1854 Treaty with the Ojibwe tribes. Have we not violated too many treaties already for far too long?	CR01
<b>Sender Name (Submission ID)</b> Shawn Beattie (6604)		
1089	I realize from an economic standpoint there would be new jobs created if the mine was approved, and that would obviously be a boon to the local people in the area. But I cannot support the mine based on the risks and long-term possible complications it may cause to such a pristine area.	SO01
1196	But I cannot support the mine based on the risks and long-term possible complications it may cause to such a pristine area.	WR115
<b>Sender Name (Submission ID)</b> Shawn Bryant (15439)		
660	The local benefit of a few hundred jobs lasting 20 years (at most half of the working lifetime of an american worker) does not come close to mitigating the environmental degradation and danger which would come with the proposed mine.	SO01
1900	More to the point, name a company that has been in business for 500 years. This is the proposed time period for which environmental mitigation would be required if the project is approved.	FIN01
<b>Sender Name (Submission ID)</b> Shawn Conrad (45458)		
15722	I am opposed to the PolyMet project moving forward as it is shocking that the state would consider permitting a project with detrimental environmental impacts that will require mitigation longer than the probable lifespan of the corporation pursuing the permit.	PER35
<b>Sender Name (Submission ID)</b> Shawn Roed (3565)		
399	The environmental sensitivity and public value of areas within and surrounding the proposed mining sites, as well as the disturbing environmental record of copper-nickel mining, leave no room for error in the regulatory process.	NEPA09
402	When contamination occurs it can be difficult to cover the costs for cleanup and remediation. Mining companies go bankrupt or fail to set aside enough financial assurances ahead of time, and taxpayers can end up holding the bill to cleanup their own community.	FIN01
404	In many cases, despite guarantees that water quality standards would be met and efforts from mining companies to do so, unacceptable contamination of water supplies and soil resources happens over 75% of the time in and around mining sites.	FIN08
<b>Sender Name (Submission ID)</b> Shawna MullenEardley (46984)		
10879	PolyMet's Supplemental Draft Environmental Impact Statement (SDEIS) is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for -- information that is necessary to decision-makers.	FIN01, WR036
10880	Wild Rice needs exceptionally clean water, and as such, is threatened by the certain water pollution that will result from the sulfide mining process.	VEG04, VEG06, WR156
10881	Additionally, this mine poses a threat to wildlife, including the federally listed Endangered Canada Lynx. By fragmenting its habitat, the mining is certain to negatively impact Lynx. The mining would also affect the long-eared bat, a species proposed to be listed as endangered. ... six state-listed animals are known to occur in the proposed PolyMet mining area. PolyMet would like to mine in high quality wetland habitat that is presently in federal ownership as a part of the Superior National Forest-the largest designated Important Bird Area in Minnesota.	WI01, WI02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Shawna MullenEardley (46984)		
10882	In addition to this direct destruction of habitat, sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream long after the mining operation is done.	AQ05
10883	Concerning human health, the World Health Organization lists 10 chemicals of major public health concern. Of those, sulfide mining involves five of them: mercury, arsenic, lead, asbestos, and air pollution, which (again) the SDEIS does not sufficiently address the extent and impact of these chemicals. Additionally, the SDEIS does not look at the possible health impact of dust containing asbestos-like amphibole fibers because such dust is not regulated.	HU01
10885	Perhaps one of the most prevalent arguments for PolyMet is the number of jobs it will create. However, these jobs are attached to severe toxic pollution, health concerns, destruction of habitat, and threats to wildlife. Instead, we should be bringing clean jobs to the Northland! The Green industry is growing tremendously and has a sustainable future (sustainable in terms of job security as well as environmental sustainability).	SO01
16705	Eleven state-listed endangered, threatened, or special concern plant species and six state-listed animals are known to occur in the proposed PolyMet mining area...the assessment does not look at the extent of the affects to these many species of plants and wildlife.	VEG01, WI01
<b>Sender Name (Submission ID)</b> Sheila Packa (11336)		
275	The Iron Range is a valuable water resource and sulfide mining jeopardizes the safety of water, wildlife, and people.	WI04
1623	Economic development concerns need to be secondary to the health and welfare of the landscape.	SO01
1624	PolyMet has presented information suggesting that they could contain the effluence. They are not able to predict extreme weather events, human error, and failures of technology---all of which are likely to occur. They always occur.	PD22
<b>Sender Name (Submission ID)</b> Sheila Sullivan (10237)		
378	I understand that jobs are important but we need to consider long term economies not a 20 year stint that may damage other business in the end.	SO01
380	I realize Polymet has a plan to treat the water - for hundreds of years. Why would Polymet commit to such a long term agreement? And how long is long. Please explain who will continue to treat the water when Polymet is not longer in existence? Has any company lasted over 200 years?	FIN01
1447	Please explain who will continue to treat the water when Polymet is not longer in existence? Has any company lasted over 200 years?	FIN01
1448	...focus on recycling and reusing of old metals.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Sheila Wilcox (45268)		
9137	Since there has never been a sulfide mine able to pull metal out of the ground without leeching toxins into the ground water and surface water, I am convinced that no matter what Polymet says they will not be able to mine in our region safely	WR023
9140	I am concerned about current mining operations that are not meeting minimum wastewater discharge standards. What kinds of variances will be allowed for Polymet? If we can't or won't police the taconite industry, how much more difficult will it be to police Polymet?	WR139

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sheila Wilcox (45268)		
9142	I am concerned about the costly effects of cleaning up the poisoned water and soil when Polymet either goes bankrupt or gets sold to some other company.	FIN01
9147	I am concerned about the astronomical cost of health care for all the individuals who will develop illnesses decades later due to unsafe exposure to manganese, arsenic and mercury brought about by pollution from Polymet.	HU03
9150	I am concerned that in exchange for polluting 6,000-8,000 acres of pristine water rich land, we are returning much less important and quite scattered lands to wetland. In my mind that is not exchanging an apple for an apple.	WET14
9153	Finally, I am concerned about the Polymet’s lack of support for the community in the form of giving to non-profits, especially the arts.	SO02
<b>Sender Name (Submission ID)</b> Shelby Flint (16344)		
11256	the SDEIS needs to take into account not just the anticipated impacts under the current climate, but the likely impacts in future under probable future-climate scenarios	AQ16, WR180
13861	Even if PolyMet offers to mitigate wetland loss by constructing wetlands or purchasing & conserving other acreage, such measures are inadequate. Newly constructed wetlands would not contain the biodiversity or carbon-storage capacity provided by intact bogs... Purchase & conservation of wetlands outside the 100 Mile Swamp watershed won't mitigate the impacts to ground- and surface-water flow that will occur if the wetland destruction proposed by PolyMet is permitted.	WET05, WET19
13862	the drawdown & drying of peatlands that will occur if the plans proceed as proposed, will result in rapid decomposition of existing peat and a substantial release of CO2.	WET13
13863	Permitting the proposed PolyMet activities would be short-sighted and cause much more environmental harm than economic benefit.	SO01
<b>Sender Name (Submission ID)</b> Shelley Hines (14882)		
234	Provide details of the calculations used to arrive at the estimated closure and long-term treatment costs	FIN05
235	Provide details of the forms that would be used to ensure that financial assurance is both bankruptcy-proof and would provide adequate income for the conceivable potential period of water treatment	FIN01, FIN03, FIN05
236	Identify other responsible parties (e.g. major investors) and how they will be held responsible for long-term cleanup should PolyMet be unable to meet their obligations	FIN02, FIN04
237	Account for reasonably foreseeable challenges that might increase the costs of cleanup and long-term site maintenance, and factor that into the calculation of what would constitute adequate treatment	FIN05
<b>Sender Name (Submission ID)</b> Shelley L Robinson (54554)		
18961	500 years to clean up the results of a few years of “productive” mining?	SO01
<b>Sender Name (Submission ID)</b> Shelley Rask (10042)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Shelley Rask (10042)		
326	I believe that PolyMet has meet all the necessary steps to ensure that the process is sound.	PD28
327	I have property (a cabin) very close to the area that is intended to be mined and feel that my way of life and use of my property would not be adversely damaged.	LU07
<b>Sender Name (Submission ID)</b> Shelley Robshaw (20120)		
1737	We cannot risk destroying the environment for this short term gain. The negative impacts will live on for generations.	SO01
1738	PolyMet cannot guarantee the safe performance of its process, nor can it provide the financial resources to handle cleanup activities long into the future.	FIN01
15014	PolyMet Mining's proposed copper nickel mine near the boundary waters is dangerous to a precious natural resource. Wild rice has already been hurt by the sulfide released into the water from previous mining.	WR159
<b>Sender Name (Submission ID)</b> Shelley Strohmaier (15430)		
654	my reading and researching on copper sulfide mining has convinced me that the polymet mine poses an unacceptably high level of risk to our pristine northern Minnesota waters.	PD01
657	It seems absurd and short sighted in the extreme that the state would allow a mine project to go forward that will produce only a few hundred jobs for just 20 years.	SO02
658	In return for those relatively small and short lived gains for the Northern Minnesota economy, we risk hundreds and hundreds of years of spoiled waters.	WR115
659	Time and again ... sulfide mining companies have destroyed the environment and failed to provide the funding required to prevent or repair the environmental damage they have caused.	FIN01
<b>Sender Name (Submission ID)</b> Shelley Valentini (5937)		
1948	One important key to maintaining prosperity in our region is the creation and stability of gainful employment options for our citizens. ... The PolyMet initiative is projected to add over 350 permanent, living-wage jobs to the area and will boost the economy in a number of other ways, including attracting other businesses to plant stakes where we live.	SO10
<b>Sender Name (Submission ID)</b> Shelly Schilling (40227)		
14122	I understand that PolyMet will reuse the infrastructure from the former LTV taconite mine and proposes to mine within an already established mining district. The proposed reuse of this facility will decrease the amount of land disturbed compared to an entirely new facility.	PD28
14123	I believe the SDEIS demonstrates that PolyMet will help meet our nation's demand for copper, nickel, platinum, platinum, gold and cobalt, put Northeastern Minnesotan's back to work and insure the protection of our precious natural resources.	SO10
14124	jobs [created by the proposed Project] as well as the estimated \$80,000,000 in annual federal, state and local taxes are very important to the future of the Iron Range in Minnesota.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Shelly Schilling (40227)		
14129	These metals are critical for the economy of the State of Minnesota and our nation's needs. The metals are needed in medical applications, electricity, catalytic converters, cell phones, computers and other essential products.	SO10
<b>Sender Name (Submission ID)</b> Sheri Plesha (39192)		
12344	PolyMet will produce these metals in an environmentally sound way and generate significant economic activity, expanding and diversifying our economy and creating hundreds of jobs that can support families and sustain communities...This project would mean 2 million construction hours, 360 full-time mining jobs and more than 600 related jobs – jobs that our state needs.	SO02
12346	Based on my review and the level of detail included in the draft EIS it appears that a thorough evaluation of the project and potential impacts has been completed.	NEPA16
<b>Sender Name (Submission ID)</b> Sherie Bosak (43311)		
15763	The public deserves more time to educate themselves and weigh the costs and benefits. Please extend the public comment period.	NEPA07
15764	Polymet's proposal to implement water osmosis treatment has been unproven on such a large scale.	WR143
15766	Polymet's proposal to contain contaminated waters erroneously pro-ports that the geological underground is not fractured and therefore, a "holding" tank of some type is to contain contaminants. The geology of northern Minnesota is widely known to be fractured.	WR012
15768	Sulfide mining has never been done in such a lush waterway. The mining industry has no proven track record for keeping waterways clean.	WR023
15769	Polymet's promise of more jobs brought to northern Minnesota does not take into consideration the jobs lost due to lack of tourism with polluted waters. ... Let us preserve our jewel of northern Minnesota. It is not worth the risk of a short sighted economic boon.	SO01
15770	Please require a health cost impact. I understand children born in northern MN already have higher levels of mercury which may have resulted because of taconite mining.	HU01
15771	The proposed site is in a verdant marsh area. This land is not replaceable by a equal land exchange.	LAN03
15772	There is no "damage deposit" required of Polymet should contamination occur. (I do not believe that sulfuric acid can even be removed from water.) Please insist on a damage deposit.	FIN01
15773	By Polymet's own projections, copper contamination to fish, at its best, will be 100 X's greater than DNR's safety levels of contamination.	AQ05, AQ11
15774	I have already chosen to go camping away from lands where preliminary drilling is said to be going on. I understand the sound of drills can be heard throughout the night.	N01
<b>Sender Name (Submission ID)</b> Sherita Townsend (54208)		
17644	Mining on the boundary waters could cause pollution. It would never be the same. Our boundary waters is more important than mining copper and nickel.	SO02

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sherita Townsend (54208)		
17645	I don't think it's a good idea to mine on the boundary waters. People go there to relax and enjoy the wilderness. These waters are very important to Minnesota.	LU06
<b>Sender Name (Submission ID)</b> Sherrie Lindskog (42841)		
7345	According to the Minnesota DNR there are more bogs and wetlands in Minnesota than in any other place in the lower 48 states. Why, then, would we risk polluting northern Minnesota for a mine that will require monitoring for hundreds of years after the jobs are finished and the ore is depleted? This type of mining has never been done anywhere without polluting nearby waters.	WR023, WR115
7345	The watershed of Lake Superior is not the place to put a copper-nickel mining operation. According to the Minnesota DNR there are more bogs and wetlands in Minnesota than in any other place in the lower 48 states. Why, then, would we risk polluting northern Minnesota for a mine that will require monitoring for hundreds of years after the jobs are finished and the ore is depleted? This type of mining has never been done anywhere without polluting nearby waters.	SO10, WR023, WR0115
18274	Don't let Poly-Met use Minnesota as a test area for something they have never done before.	PD23
18274	Don't let Poly-Met use Minnesota as a test area for something they have never done before.	PD23
<b>Sender Name (Submission ID)</b> Sheryl Wilson (45942)		
10364	The environmental damage caused by this enterprise will be significantly greater than any positives this mine will bring to the area or Minnesota. 300 jobs is really just a drop in the bucket. I am so tired of rhetoric that encourages people in depressed economic areas to poison their surroundings in order to make a living. ... This is just big business preying on the economically disadvantaged for the sake of huge profits.	SO01
10367	... this type of mining is environmentally unsound and has proven to be very likely to cause damage in the future. ... We have a beautiful state here and the Boundary Waters are a national treasure. Please don't put all of that in jeopardy for only a few hundred jobs.	WILD02
<b>Sender Name (Submission ID)</b> Shira Brech (57184)		
18657	Don't mine near the boundary waters – work towards job creation through renewable energy – we need to be moving forwards – the boundary waters is beautiful and preserves humanity and hope – protect the people, workers, and planet.	SO02
<b>Sender Name (Submission ID)</b> Shirley Ann Steinhagen (57180)		
18664	It is necessary to have a decent population of people living and raising families and having jobs to earn a living and enjoy our state. Where does this lead us if the ground and air so contaminated? It puts a risk of our resources a life for everyone well into the future. Let us not forget Lake Superior and the dangers of contamination.	SO02
18665	Contaminated streams, rivers and lakes are at serious risk to the health of all animals and our forests. Let's not forget the people who consume contaminated wild life from creatures in the water and on land.	GEN03
<b>Sender Name (Submission ID)</b> Shirley Huskins (54797)		

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Shirley Huskins (54797)		
18107	We need to [sustain and protect]...not damage the environment ... in any way that our generation and future generations will no longer have this original setting to savor and enjoy. The Northern Forest ecosystem would be forever changed. How can you replace this natural beauty?	LU04
18112	The pollutants deposited in the water from sulfide mining would devastate everything...Polluted water would be felt far beyond NE Minnesota as the rivers and streams enter Lake Superior and the Mississippi to the South, Pacific Ocean to the West, Hudson Bay to the North, and St.Lawrence Seaway to the East...How can you prevent polluted waters from leaving the mining area?	WR107, WR108, WR111, WR130
18114	Human Health...was not adequately addressed in the EIS. Contaminating metals, such as mercury, manganese, lead, nickel, aluminum, and arsenic are all injurious not only to humans, but to all fish and wildlife. ... the population of Northeast Minnesota... were warned not to eat more than one meal of fish a week because of the high amounts of mercury found in the fish. It would be frightening to learn what effects the other metals would have on the brain, lungs, and other body systems.	MERC03
18115	Wild Rice...would be affected by the polluted waters. ... Why should [Native Americans] now have to worry about waters that grow the wild rice are so polluted to prevent them from growing their economical crop so that large companies and corporations can have more money in their pockets?	CR01
18117	Ely, Minnesota is known as a tourist area which benefits greatly from the tourists who come not only from the U.S. but all over the world. Why? Because of its natural beauty, the peace and tranquility of camping on its beckoning lakes, fishing its refreshing waters, paddling its rivers, lakes and streams, and breathing its cool, pine scented air. ...There is no ...reason why these quiet, relaxing ways of life should be replaced ... with noise and unwanted diversities.	SO02
18120	It is stated that there would be reclamation of affected areas in mining localities. Once affected, it can never be reclaimed. How can PolyMet ever make such a statement?	VEG05
18123	the subject of mishaps or accidents has not been mentioned. Everyone knows such things happen, but no mention of how the costs would be covered is included in this SDEIS	FIN05
<b>Sender Name (Submission ID)</b> Shirley Zumberge (58084)		
19846	At this time I see no guarantee of safety to our water, air or wildlife.	GEN03
<b>Sender Name (Submission ID)</b> Sierra Club (3922)		
9676	The companies that own the mines will reap the profits and then leave, forcing the citizens of Minnesota to deal with the damage to the health of humans as well as wildlife. There is no guarantee that any company will be around long enough to sufficiently correct all of the damage done, no matter what these companies promise in the beginning.	FIN01
9842	The waste-water from sulfide mining damages the ecosystem around the mine, as well as everything downstream from the runoff. Studies show there is not a possibility long term pollution, but a certainty.	WR023, WR115
9844	However, there is a guarantee that damage will be done to the natural environment, especially the irreplaceable Boundary Waters Canoe Area Wilderness	WILD02
9845	Destroying the beauty and health of the state of Minnesota is not worth creating a few hundred temporary jobs.	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sierra Club (3922)		
12412	hazards of sulfide mining demand that any permit granted for mining in Minnesota be conditioned on a posted bond sufficient to cover the costs of mitigating any and all of those hazards.	FIN05, FIN08
12415	The state must first be assured by all competent authorities that this project will not damage Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations.	WET24, WI01
12420	The state must recognize that the mining of precious metals beneath our surface may first require the development of new mining technologies. In this regard, would-be miners should be encouraged to contribute funding for research by the University of Minnesota and work with the University to develop those safe mining practices.	PD32
<b>Sender Name (Submission ID)</b> Sierra Club Northstar Chapter (42950)		
5655	The proposed NorthMet mining project poses numerous unconscionable risks to the State of Minnesota, its citizens and future generations, and the surrounding environment and watersheds. This project will not keep Minnesota's invaluable water resources safe and clean. Hardrock mining is the top toxic producing industry in the country. There has never been a sulfide mine that has not polluted its surrounding environment. Now PolyMet wants to bring this dangerous type of mine to Minnesota. Sulfide mining has never before been permitted in the state of Minnesota and after review of the SDEIS it must be concluded that this risky project cannot be conducted in a safe and trustworthy manner.	PD26
5657	The SDEIS is severely inadequate and is missing many important details. The SDEIS shows that the proposed mining project will pose numerous unsafe and unacceptable environmental risks. The SDEIS does not establish proper safeguards to deal with problems as they arise. Without suitable safeguards the SDEIS cannot be considered complete. . . PolyMet has not provided adequate financial assurance to guarantee that the site will be adequately cleaned up and all traces of pollution dealt with.	FIN05
5660	A flawed computer water model blatantly under-predicts the true amount of pollution that will result from proposed mining activities. This flawed modeling data must be redone. The water model shows long term treatment of waste water will be required for hundreds of years after closure of the mine site. PolyMet stopped its modeling after 500 years. What happens after 500 years have gone by? Who will take responsibility to constantly monitor, treat, and prevent any contaminated water from escaping into the environment 200 years from now, or 500 years from now? Who will bear this financial burden? Expensive treatment and cleanup of PolyMet's mine site for the next 200 to 500 years and likely even longer, is completely unacceptable and violates Minnesota law requiring closed mines be "maintenance free".	PER04, WR037, WR189
5662	The loss and degradation of vast amounts of high quality wetland areas is unacceptable. PolyMet plans to dig up and obliterate almost 1,000 acres of high value wetlands that provide critical habitat to numerous sensitive species, including moose. But it doesn't stop there; over 6,000 additional acres of wetlands would potentially be destroyed or impaired due to mining activities. Many wildlife species are declining in Northern Minnesota and impacts from proposed mining activities will further degrade their habitats.	WET24
5664	If the Land Exchange is approved by the USFS, it would facilitate the destruction of over 1000 acres of high quality wetlands and thousands of acres of the Superior National Forest by a Canadian multinational mining company for a copper-nickel sulfide strip mine. This would be the largest permitted destruction of wetlands since the Saint Paul District of the Corps began permitting wetland fill. PolyMet's NorthMet strip mine is sited on the headwaters of Lake Superior and the Great Lakes themselves. In recognition of the significance of the affected wetlands and watershed, the EPA has said "this project may result in substantial and unacceptable impacts to aquatic resources of national importance (ARNI)".	WET14, WET19, WET23

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5666	The Sierra Club opposes the proposed PolyMet Land Exchange. The sole purpose is to remove long standing environmental protections, on Superior National Forest public lands, against destroying the surface, and more specifically against strip mining. The land exchange would pave the way for PolyMet to strip mine national forestlands protected by the Weeks Act of 1911 and open a sulfide mining district across Minnesota's Arrowhead Region.	LAN02
5668	Adverse effects on endangered and threatened species, and other wildlife, are inadequately addressed in the scoping documents for the PolyMet Land Exchange including lynx, wolf and moose analyses. Thousands of acres of habitat and important wildlife corridors would be severely and negatively impacted, without meaningful mitigation. This includes northern goshawk territory, numerous migratory birds, Bald and Golden Eagles.	WI01, WI02, WI03
5670	The wetlands impacts in the Land Exchange proposal are even more underestimated because credit is given for the buffer lands that are assumed to be left intact "for the foreseeable future" this is an unfounded assumption. USFS guidelines call for "no net loss" of wetlands (MN also has a No-Net-Loss policy on wetlands) and have not addressed the fact that the current USFS lands and wetlands will be destroyed, most likely the buffer lands wetlands will be as well. A land exchange doesn't create wetlands, it is a loss and the USFS must acknowledge that. The land exchange would actually facilitate and allow the destruction of wetlands (again, the single largest loss of wetlands in MN ACOE history).	WET14, WET23
5672	[T]he loss of the USFS wetlands and forests would be a loss to the public and would be contrary to the Weeks Act and would be against the public interest. For the Forest Service to simply exchange these national forest lands whenever there is a "conflict" between the Forest Service's management and the private mineral estate, would violate the very intent and purpose of acquiring these lands under the Weeks Act.	LAN02
5674	The Forest Service Must Withdraw the Land Exchange Proposed Action Because There Is No Conflict That Needs To Be Resolved. The SDEIS states that the purpose of the Land Exchange is to "consolidate the surface and mineral ownership of the lands involved at the Mine Site" (SDEIS at 1-11)...At the outset, it is important to dispense of the notion that there is some "fundamental conflict" that must be resolved. No such conflict exists. If "the mineral rights that were reserved do not include the right to surface mine as proposed by PolyMet," then there is no conflict with not allowing that kind of mining to occur. PolyMet is not entitled to engage in activities that its predecessors-in-interest failed to reserve at the time the United States acquired the surface.	LAN04
5677	The Sierra Club does not believe that the lands set forth to be exchanged are a fair trade or of equal value for the USFS lands...The EIS should provide a detailed analysis of how the proposed tracts of land were assessed for value, including value to the public for recreation purposes, water, species and scenic resources, value for cultural and historical purposes and future value in terms of biodiversity, lessening of fragmentation and climate change. The true economic value of the surface estate to PolyMet, including gaining the ability to destroy the surface by strip mining, should be included in the valuation.	LAN03
5678	According to the NOI in the Federal Register: "Many of these federal lands are adjacent to lands extensively impacted by past and ongoing mining activities." These are almost the same circumstances as the current PolyMet NorthMet split-estate situation that is the stated purpose of this land exchange. Will the Hay Lake acreage (and all of the non-federal lands) have Weeks Act protections against destroying the surface? Shouldn't that information be included in the SDEIS?	LAN02
5680	Most of PolyMet's proposed exchange lands are in mineral exploration areas. The Mineral section from the Feasibility Analysis was done by PolyMet's own geologist Richard Patelke and is speculative and conflicted by the relationship of the preparer with PolyMet. Yet the USFS is relying upon the documents as fact based instead of merely PolyMet based assumptions. Will the newly exchanged lands have equal protections on the surface as the USFS Weeks Act of 1911 lands do now?	LAN02
5682	Deforestation on the now intact USFS lands will occur in the foreseeable future if the exchange is approved. The exchange, and thus the mine, will likely result in increased invasive plant species across the Superior National Forest.	VEG05

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5684	Why has the public had limited access to the USFS NorthMet lands? Please explain the complete history of the Dunka Road. The public has been denied access for many years. The USFS should explain and document by what authority or agreement, etc that the public's use has been restricted on the USFS lands.	LU01
5686	The value of the metals should be part of the valuation, or more accurately, the value of the Access to the metals. The mineral estate is encumbered by the Weeks Act provisions against strip mining, and the value of the mineral estate is less because of the mining restrictions contained in the deeds. It is a GIFT to PolyMet & RGGS (mineral estate holder) if they get virtually unfettered access and the right to strip-mine the minerals merely for the value of the surface lands (through an exchange of equal surface rights). The difference between being able to destroy the surface or not, underground versus strip mining, determines whether the mine is profitable or not (ostensibly worth hundreds of millions of dollars). A private party would most likely not enter into such an arrangement, they would no doubt negotiate many millions of dollars above and beyond the lands offered for exchange. The PolyMet land exchange appears to be a bad deal for the USFS and the American people.	LAN02
5688	Further, the proposal does not meet these four Forest Service Strategic Plan Goals:1) provide and sustain benefits to the American people (desired outcome is forests with sufficient longterm multiple socioeconomic benefits to meet the needs of society);2) conserve open space;3) sustain and enhance outdoor recreation opportunities; and4) maintain basic management capabilities of the Forest Service by reducing landlines and mineral conflicts.	LAN04
5692	Land Exchange violates the Weeks Act of March 1, 1911 and Federal Land Policy and Management Act of 1976; and the Federal Land Exchange Facilitation Act of 1988. According to the scoping documents: "This exchange is proposed under the authorities of the Weeks Act of March 1, 1911 as amended; the Federal Land Policy and Management Act of October 21, 1976; and the Federal Land Exchange Facilitation Act of 1988." The USFS public lands were acquired under the authority of the Weeks Act of 1911 and designated for watershed protection and to secure the maintenance of a perpetual growth of forest. The land was to be held as national forest lands- forever. Please explain how the Proposed NorthMet Mining Project and connected Land Exchange, is in compliance with these laws?	LAN02
5696	The USFS has the ability and the requirement to protect the surface of the USFS lands that PolyMet wishes to destroy by strip mining, it is in the public's long term best interest that they protect the surface. The PolyMet plan calls for perpetual treatment and persistent and long lasting pollution and degradation at the proposed mine site that could be avoided if the USFS kept title to the lands and continued to administer them as Weeks Act lands.	LAN02, LAN04
5698	Underground mining is an option with substantial environmental benefits, but was quickly eliminated on economic grounds – even though it would better protect the surface of the Federal lands.	ALT01
5700	It is the obligation of the USFS to protect the land, air, water, animal and other natural resources of the public lands being proposed for exchange, set to be destroyed and degraded if the land exchange is approved. No acceptable mitigation has been offered for those losses. Again, will the Weeks Act protections be part of the non-federal lands that the Forest Service would get in the exchange? That must be addressed in the environmental review of the project.	LAN02
5701	If Lake County has approved or entered into an agreement or contract with PolyMet for the sale of lands to PolyMet in furtherance and assistance of PolyMet's NorthMet project through the environmental review process, it is prohibited from doing so by state and federal law restricting government action or approval prior to completion of the environmental review process...If Lake County has indeed entered into an agreement with PolyMet, it is a violation of MN Rules part 4410.3100,...The acts of Lake County are prejudicial to the final approval of the NorthMet project. The USFS must address whether the Lake County Lands are part of an illegal action and if so,remove them from consideration in PolyMet's proposed land exchange.	LAN09

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5704	The Sierra Club concludes that the USFS must find that the proposed land exchange would not result in an overall benefit to the public and is not in the public interest. The land exchange would pave the way for PolyMet to strip mine lands protected by the Weeks Act of 1911 and open a sulfide mining district across the Superior National Forest and beyond. The land exchange, if approved, would have very negative environmental impacts on the forests, wetlands and wildlife of Minnesota's boreal region.	LAN01, LAN02
5706	The SDEIS provides minuscule discussion on the costs and benefits of the no action alternative relative to the preferred alternative and there are few comparisons of the no action alternative to other alternatives.	ALT14
5709	While the SDEIS "identifies" several alternatives, it does not discuss them and is therefore in violation of Federal and Minnesota law. The whole point of this requirement is to discuss different alternatives, and the SDEIS discusses only one; the preferred alternative. Simply listing a one sentence description of an alternative measure to be used, is not discussing the feasibility of that measure. PolyMet is obligated to study, develop and describe all reasonable alternatives and alternatives eliminated from detailed consideration do not count in the range of alternatives.	ALT06, ALT21
5713	Under NEPA, an EIS must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. §4332(2) (E); 40 C.F.R. §1508.9(b). Without including other alternatives to the proposed project, there is no discussion of alternative mitigation measures that could be employed. There is no discussion of alternative reclamation plans, waste rock containment, or water treatment strategies.	ALT06, ALT21
5719	The SDEIS fails to adequately assess reasonable alternatives such as underground mining. The SDEIS is also inadequate because it does not address reasonable alternatives that are likely to have far less environmental impacts than the proposed open pit mine alternative. These include the underground mine alternative, the west pit backfill alternative, and the reduced production alternative. These alternatives will result in significant environmental benefits over the proposed action.	ALT01, ALT06
5721	Eliminating an alternative simply because a permittee indicates that it would not go ahead with the project if the alternative was required would allow permittees to avoid increased costs for environmental protection at their own discretion. This would essentially nullify the Minnesota Environmental Rights Act. An underground mine option would result in far less negative environmental effects including a much shorter water treatment period. In addition, an underground mine would have a significant economic benefit.	ALT01
5726	The SDEIS fails to include many relevant projects in its cumulative effects analysis, including current and anticipated mineral exploration in the Superior National Forest, other sulfide mines that are in the process of completing their environmental review and permitting requirements, potential land exchanges, and Superior National Forest vegetation management projects... Notably missing projects include; Twin Metals, Federal Hardrock Mineral Prospecting Permits #2, and Teck Cominco. These three mining projects must be included in the cumulative effects analysis.	CU02, CU08, CU09
5729	Various land exchanges that are being considered must also be disclosed in the SDEIS and how they may impact the potential environmental impacts related to the PolyMet project. This includes the proposed School Trust Lands – Boundary Waters land exchange.	CU08
5732	The SDEIS fails to disclose that there are plans to operate the plant site for other reasonably foreseeable mining projects in the area... Any potential for reasonably foreseeable projects, that will utilize the plant site, must be included in the cumulative impacts discussion.	CU02, CU04
5792	The potential use of the site for underground mining needs to be evaluated. It must be considered that it is reasonably foreseeable that underground mining operations will occur in the future at the NorthMet mine site; this needs to be included in the cumulative effects analysis.	ALT01, CU04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5793	The discussion of cumulative impacts on wildlife is severely lacking. There must be a proper analysis of this project and other projects effects on moose, lynx, aquatic species, and other sensitive species within the area and downstream watersheds. Destruction of vegetation and wetland areas, noise, blowing sulfate containing dust, and releases of pollutants into water resources are just some of the cumulative effects that will impact wildlife. Also missing is any references to cumulative impacts to wildlife from ongoing and future climate change conditions.	WI01, WI04, WI05, WI08
5794	The SDEIS fails to adequately assess the environmental impacts caused by increased sulfates, mercury, and other pollutants as a result of this project and other past, present, and future mining projects.	MERC10
5796	The SDEIS needs to sufficiently analyze all potential cumulative impacts to surface and subsurface waters, including downstream areas and watersheds such as the St. Louis River and its estuary, and Lake Superior. Additionally, effects to wild rice waters need to be included.	WR024, WR157
5797	Cumulative effects considered for wetlands need to include the St. Louis River watershed along with the Partridge and Embarrass River watersheds. Project activities will increase the already present existence of pollutants that are degrading water quality standards within the St. Louis River watershed....The SDEIS' review of cumulative impacts to wetlands is insufficient, geographically limited, and drastically under estimates total effects to area wetlands.	WET18
5806	The SDEIS does not specify when or where water alone will be used to suppress dust from roads and other surfaces, and where suppression enhancers will be added to water to improve its suppression abilities. Without a significant environmental or safety reason, water alone should not be used to suppress dust, rather magnesium chloride or another suppression enhancer should be used in conjunction.	AIR07
5808	The SDEIS states that there will be two ambient air quality monitors installed to minimize fugitive dust effects (5-402). But does not specify what they will monitor for. Two monitors are not sufficient, there should be more. Their placement will determine their effectiveness. More information needs to be disclosed regarding the specifics of these air quality monitors.	AIR13
5811	Filling the waste pits with waste rock and then flooding them with water to "minimize" the amount of waste rock exposed to the atmosphere is supposed to be the strategy for preventing oxidation of the sulfide minerals. This plan is insufficient. Metals are still going to leach into the pit water and could escape into the surrounding environment....If a pit floods, disaster unfolds. If a sudden storm occurs there may not be time to adequately dewater the pit to prevent flooding, spills and leakage.	PD15
5812	The SDEIS should include an analysis of the total amount of mercury in the mining process, including bulk tailings, hydrometallurgical tailings, and autoclave scrubber waste, and where PolyMet plans to dispose of this waste. Further, to ensure that mercury capture systems are functioning properly, a regulated monitoring plan should be required to provide reliable data on mercury emissions.	MERC17, MERC20
5813	The SDEIS should include noise contour maps, especially important near recreational areas such as the Boundary Waters Canoe Area Wilderness (BWCAW) so that the public can be fully aware of the noise that they will encounter when visiting state and federal recreational lands. These maps should include not only noise from all mining operations but also noise from transportation activities to the site.	N02
5815	Further, it is incomplete to merely consider noise in terms of decibels, rather noise impacts should also be analyzed in terms of noise tonality, low frequency noise, fluctuating noise, and impulsive noise.	N06
5817	The SDEIS' reclamation plan calls for abandoning pipelines where they lay. This could be a problem if these abandoned pipelines result in water flowing in places where it should not be flowing. All pipelines that are to be abandoned should be fully evaluated to ensure that they are not leaking any contaminants and that their location is not causing water to flow between two different water resources, where without the pipeline there would be no connection.	PD35

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5819	Regarding waste, the reclamation plan does not expressly state the applicable federal and state laws, regulations, and rules governing testing, handling, storage, and disposal of hazardous, toxic, nuclear waste. These laws, regulations, and rules need to be included in the EIS to assure compliance. The reclamation plan should include a tracking system and a documented certification program so that it can be guaranteed that hazardous materials are properly disposed of.	PD35
5821	The SDEIS does not explain how the reclamation plan will work to prevent erosion from occurring. There needs to be discussion in the EIS and a clear plan for reducing erosion that could lead to negative impacts on water resources.	PD09, PD35
5824	The reclamation plan does not provide enough detail on the desired water balance between the East and West Pits. What conditions would prevent this water balance from being achieved? How long will it take to achieve this balance? What will need to be done to achieve this balance? The reclamation plan needs to provide a more thorough analysis regarding a timeline for water balance between the two pits.	PD35
5825	There is concern that the reclamation plan does not adequately consider how the pits will affect wildlife in the area. How will bird and wildlife species be protected from falling into the pits and the channel that connects them? The reclamation plan needs to assure that wildlife species are protected from these areas and the contaminated waters contained therein.	WI04
5827	The reclamation plan needs to commit to removing all the waste rock and all the contaminated materials underneath the temporary stockpiles after their use is complete.	PD35
5829	In addition, the reclamation plan needs to clearly articulate goals and plans for re-vegetation of the site and procedures and timelines for decommissioning roads. Plans for storage and redistribution of topsoil need to be included. Plans for stopping the spread of weeds and invasive species must be addressed.	VEG05
5830	PolyMet needs to establish a better plan for replacing wetlands on-site. Merely working to purchase or protect wetlands at different locations, away from the mine site, is not sufficient. A commitment needs to be made to re-establish wetlands on-site, the SDEIS should include specific goals including size and volume for re-established wetlands. If it is not possible to re-establish wetlands on-site, this reality needs to be included in the EIS. If PolyMet makes the commitment to reestablish wetlands on-site and these wetlands, after 5-10 years are not functioning, what will be done to remedy the situation?	WET03
5832	The reclamation plan does not contain enough specifics regarding monitoring. Very explicit goals need to be identified and reached before monitoring at the site can be reduced or the bond is released. Monitoring schemes must include timeframes and clearly identify what responses will be for failure to meet these timeframes and goals. The reclamation plan should be reviewed and updated every few years so the public and regulatory agencies are kept up-to-date on the progress of reclamation.	PD24
5833	The SDEIS fails to take a hard look at the impact of vehicle/lynx collisions. It ignores the seriousness with which the designation of threatened species must be taken when reaching the conclusion that vehicle/lynx collisions will not have significant consequences.	WI01, WI03
5835	Lynx are known to travel long distances in search of prey, especially when their preferred prey is at a low ebb (p 5-364; Thumbs 1271). Lynx must try to reach all parts of their critical habitat to forage. The SDEIS ignores these facts, which it describes well, when concluding that the transportation corridor is not a hazard for lynx and that there is a low likelihood of collision between lynx and vehicles.	WI01, WI02, WI03
5836	The assumption that vehicle collisions would be low because lynx will avoid the area due to mine activity is absurd. This project will result in significant negative impacts to the lynx.	WI01, WI03

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5837	The SDEIS mischaracterizes their own data and in so doing understates the impact on lynx habitat resulting from mining activities at the mine site...Stating the results this way gives the impression that the additional fragmented and reduced acreage of lynx habitat is small and inconsequential. However, this is the wrong impression. The reality is that the proposed action of this one strip mine would increase the percent of fragmented and unsuitable lynx habitat in LAU 12 by 50%.	WI02
5838	The SDEIS is inadequate and incomplete because it does not analyze the impacts of noise, vibration, and air blast on animals, notably the Canada Lynx, a threatened species. And it uses an inappropriate baseline when reporting impact on animals.	WI01, WI05
5839	The SDEIS cumulative analysis of noise, vibration, and air blast is inadequate because it fails to report effect contours from other nearby mining sites on wildlife travel corridors and access routes and, therefore, it fails to take a hard look at cumulative environmental effects of noise, vibration, and air blast on wildlife.	WI03, WI05, WI08
5840	The SDEIS analysis of the effects of noise, vibration, and air blast is deficient also in the near total absence of discussion of all of these factors on animals, in particular the Canada Lynx, a threatened species; or the wolf or moose.	WI01, WI05
5842	We have shown that noise, vibration, and air blast contours encompass five wildlife corridors and their access routes due to proposed mining activities at the mine site. A reasonable cumulative analysis would impose similar effects contours emanating from existing nearby operations such as Northshore mine, Mesabi nugget, etc. These contours would no doubt overlap those shown for the proposed NorthMet action. Concentrations of effects on geographic features such as wildlife corridors and access routes should be highlighted. The SDEIS should show what portion of the effects is due to the proposed and modeled mine site over and above the combined effects due to other sources on wildlife travel corridors and access routes.	N03
5844	The SDEIS is deficient because it does not analyze separately the effects on the Canada lynx population that inhabits portions of the critical habitat area south of the mine site, the plant site, and more generally, the area south of the Mesabi Range.	WI01, WI02
5845	The SDEIS is replete with statements to the effect that the proposed NorthMet action will have no effect on the lynx population as if the population lynx north and south of the Range possess identical risk levels.	WI01
5846	The SDEIS utterly fails to understand the effect of placing a miles long permanent barrier to travel to and from south east of corridor 17. It continually refers to this barrier in legal terms, "direct loss and fragmentation", without detailing how the loss in language impacts the lynx. It seems ludicrous to assume that the experience of the population that resides south of the Mesabi Range, including, of course, the population that lies south of the mine and plant sites, is no more at risk than lynx populations residing north of the Mesabi Range. Lynx to the south of the Mesabi Range are, without even considering the environmental effects of the proposed NorthMet action, already at greater risk than the population north of the range.	WI01, WI02, WI03
5847	Both land exchange proposals are invalid because the "mine site only" land exchange proposal was erroneously rejected and dropped from further consideration. The "mine site only" land exchange proposal includes the smallest land area of all the considered proposals other than the "no action" proposal and would meet some of the inadequacies of the preferred and alternate land exchange proposals. It preserves a much larger amount of high quality critical habitat than either the preferred land exchange proposal or the alternate smaller one.	ALT14, ALT23

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
5848	The agencies rejected the “mine site only” proposal erroneously in spite of their own data [i.e cumulative Class I and Class II incremental effects], an indefensible decision that invalidates both the preferred land exchange proposal and the alternate proposal. The “mine site only” proposal must be rehabilitated as a viable land exchange option. Note: When rehabilitating the mine site only proposal, none of the Superior National Forest land that is situated to the south of Dunka Road should be included. A perusal of the Figures representing the proposed uses of the mine site reveal that nomining use at all is proposed for any of the Superior National Forest land that lies south of the Dunka Road. There is no valid reason to include in the proposals land that is not needed for the proposed NorthMet action.	ALT23
5849	Both the preferred and the alternate smaller land exchange proposals are invalid as additional land area beyond the requirements of the mine site is not required; and none of the proposed exchange parcels satisfy the most immediate, specific environmental requirement required by the Canada Lynx, a federally listed species. ...The agencies have failed in their obligation to take seriously the duty to protect wildlife such as the federally threatened lynx and the State listed wolf which should not be deprived of what remains of the large block of needed high quality critical habitat when it is not required for mining. These proposals include large amounts of land not required for mining which should be maintained in tact in deference to wildlife such as the federally threatened lynx and the State listed wolf. ...None of them [proposed land exchange units] are geographically located in the access path physically proximate to what is the only wildlife corridor not threatened with direct loss or fragmentation of habitat inside the corridor (p. 6-56; Thumbs: 1677); moreover, none of them are so situated with regard to any wildlife corridor...The SDEIS fails to recognize that all of the proposed replacement exchange parcels fail to compensate for this critical environmental fact: All of the land included in the preferred and the alternate B proposals permanently eliminate and/or fragment large areas of existing high quality roadless habitat all of which must be preserved intact in order to assure unimpeded access to corridor 17. Both the larger preferred proposal and the alternate B proposal fail to do this and are, therefore, invalid.	NEPA04
5850	Contemplation of additional mining activity beyond the proposed NorthMet action is a connected action and would invalidate the SDEIS if not fully disclosed. PolyMet rejected the underground option in the absence of adequate analysis...PolyMet’s rejection of the idea of backfilling the west pit is presumptive evidence that further mining activities on Superior National Forest lands included in both land exchange proposals are, ipso facto, reasonably foreseeable actions. If so, then this constitutes a connected action which must be fully disclosed and analyzed in a detailed mining plan estimate before it can be rejected. Failure to fully disclose a connected action would invalidate the SDEIS.	NEPA14
6388	Both the preferred and the alternate smaller land exchange proposals are invalid as additional land area beyond the requirements of the mine site is not required to fulfill the purpose of the proposed NorthMet action...In fact, perusing the Figures representing the proposed uses of the mine site no use at all is proposed for any of the land inside the mine site that lies south of the Dunka Road. There is no valid reason to include in the proposals land that is not needed for the proposed NorthMet action. Wildlife will be seriously affected by the permanently reduced acreage of the mine site, the permanent barrier that would be erected there, and the permanent Category 1 rock pile...mining. Both land exchange proposals include large amounts of land not required for mining. This land should be maintained, intact, in deference to wildlife such as the federally threatened lynx and the State listed wolf.	NEPA04
6389	Wildlife will be seriously affected by the permanently reduced acreage of the mine site, the permanent barrier that would be erected there, and the permanent Category 1 rock pile. The agencies have failed in their duty to take seriously the duty to protect wildlife such as the federally threatened lynx and the State listed wolf which should not be deprived of what remains of the large block of needed high quality critical habitat when it is not required for mining.	WI01, WI02
7198	None of the proposed exchange parcels satisfy the most immediate and essential environmental requirement of the Canada Lynx, a federally listed species and are, therefore, invalid...The SDEIS fails to recognize that all of the proposed replacement exchange parcels fail to compensate for this critical environmental fact: All of the land included in the preferred and the alternate B proposals permanently eliminate existing high quality roadless habitat all of which must be preserved intact in order to assure access to corridor 17.	WI01, WI02, WI03, WI10

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7202	Both land exchange proposals are invalid because the agencies misuse, wrongly interpret, and fail to follow the land exchange guidelines and, as a result, ignore imperative environmental concerns (as regards the impact of the proposed land exchange on the Canada Lynx, a federally threatened species, and the Grey Wolf, an RFSS listed species.)...The SDEIS lists four administrative guidelines when considering the purposes of National Forest System land exchanges... We disagree with the Forest Service claims regarding guidelines (a) and (c). ...We disagree that the affected Superior National Forest land is “chiefly valuable for non-Forest System purposes”. To suggest that protecting essential lynx habitat by insuring access to important wildlife corridors is not a major valuable purpose of the National Forest System, as citing this guideline [guideline a] does, is absurd and represents an abandonment of lawful duty...The attempt to characterize the whole of the land exchange proposals as “isolated and intermingled with private land” in order to justify the sacrifice of thousands of acres of high quality habitat as a remedy for administrative problems with a small detached parcel is to not only a mischaracterization of the matter but also a misuse of guideline (c) in an arbitrary, misleading, and egregious manner. Since there would be no impediment to fulfillment of the proposed NorthMet action by deleting it from consideration, the detached parcel cannot rightly be used to qualify the existing land exchange proposals under guideline (c).	WI01, WI02, WI03
7219	The SDEIS goes on to site three priorities that also serve as guides in the selection of replacement exchange parcels: “Standards and Guidelines to achieve this Desired Condition provide that land acquisitions would generally be guided by the following criteria (G-LA-2, Forest Plan” (pages 51-52) and then ignores them, especially Priority 1: “Priority 1 (a, b, and c are not listed in order of importance) ...The agencies cannot “cherry pick” guidelines to satisfy administrative actions when to do so is in conflict with other imperative obligations. The agencies must pay attention to the priorities, especially Priority 1. They cannot arbitrarily ignore some guidelines and ignore others at will, in this case, abandoning their responsibility to protect the Canada lynx and shepherd its recovery in order to meet administrative goals of lesser importance. Failing to recognize the obvious demand of Priority 1 represents an abandonment of the obligatory function of preserving needed habitat as specified in this guideline... The privately owned proposed exchange parcels are, thus, perforce disqualified due to incorrect application and misuse of land exchange guidelines (a) and (c) while ignoring Priority 1. Therefore, both land exchange proposals are invalid.	WI01, WI02
7611	The SDEIS is inadequate because the agencies failed to construct a land exchange proposal that integrates existing Superior National Forest land with adjacent areas to preserve and expand federal protections to lynx, wolf, and umbrella species’ access to the southwest, south, and eastern access paths to corridor 17...With the likely direct loss of land inside corridor 18 due to expansion of the Northshore mine, corridor 17 takes on even greater importance. The proposed land exchange proposals would not remedy this situation and would remove federal responsibility to protect the lynx and nurture its recovery.	WI01, WI03
7788	A newly developed exchange proposal containing a portion of the area west of the national forest boundary is the only way to consolidate land needed for environmental protection of the lynx and the wolf; and, at the same time, extend perpetual, specific, and necessary federal protection of the Canada lynx managed under the USFS lynx management plan insuring access in perpetuity southwest of corridor 17; as well as state protection of the wolf, a State listed species.	WI01, WI03, WI10
7991	As noted above, the larger parcel proposal fails to preserve a sufficient un-fragmented, straight line access path eastward to and from corridor 17. In like manner, the smaller parcel proposal fails to preserve an eastward path to and from corridor 17 (Fig. 3.3-2; p 3-167; Thumbs 328). The new land exchange proposal should be constructed in such a manner as to preserve from fragmentation additional needed habitat in this eastern access path to corridor 17 by including portions of T16N R13W Sec 33, 34, 35; and T59W R 13 W Sec 2, 3, 4, portions of which are owned by the federal government and already included within the national forest boundaries. Likewise, the new landexchange proposal should include the land lying east of the east pit that is not required to achieve the purposes of the proposed NorthMet action.	WI03

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8002	[S]electing the smaller mine site proposal as the preferred land exchange option is not a complete solution because this option falls short of the opportunity which the agencies have to definitively extend federal forest boundaries sufficiently westward to establish clearly the breadth of the southwest access path to and from corridor 17. In addition, it does not describe an easterly approach to corridor 17 that provides an adequate straight line assess path to corridor 17.	WI03
8004	The failure of the agencies to prepare a land exchange proposal that fulfills the National Forest Service obligation to protect a federally threatened species and state listed species by preserving needed high quality habitat surrounding the mine site, and even to increase the protected critical habitat by bringing all of the eastern, southern, and southwestern access paths under permanent federal and state protection--when the opportunity lay open before their eyes--is a glaring error that confirms the inadequacy of the SDEIS land exchange proposals.	WI01, WI02
8012	The cumulative analysis of the effects of the proposed NorthMet action on wildlife (Canada lynx, grey wolf, moose, bear) is invalid because of a failure to develop an adequate data base on the wildlife travel corridors and access paths thereto, conclusory statements, language which obscures the nature of the impacts, and a virtual absence of a contextual analysis of the cumulative effects of the proposed NorthMet action required by law.	WI01, WI03
8019	The available data are inadequate to clearly indicate where and in what degree or manner the existing and additional effects are or would be situated with respect to the corridors and access paths. Keeping in mind the level of detail found elsewhere in the document, for example in the characterization of the land exchange parcels and the mine site, there is no excuse for this.	WI03
8022	extensive on-the-ground assessments should have been undertaken to further describe the corridors and the access paths to and from them. A rationale should have been devised to reduce the level of judgment involved in setting the boundaries of corridors and access paths and determining which criteria listed above were met and to what degree. Modeling of existing effects and likely future effects with accompanying graphic representations would have provided additional clarity to the matter. It is simply astounding that none of this was done.	WI03
8025	The result of the poor quality of data is that most characterizations of the corridors and access paths are conclusory accompanied by little or no detailed data. We are simply left to accept, or not, the statements of the agencies.	WI03
8053	In light of the effects described above, and in spite of the inadequacy of the data base, one would still expect that the SDEIS would attempt to quantify or at least discuss the cumulative effects of the NorthMet action on corridor 17. Instead, the agencies, after cataloging current and likely effects on the basis of poor quality information simply let stand the unanalyzed statements which, as noted, include incorrect information, inadequate descriptions, and fail to include pertinent information and critical analysis regarding the permanent barrier and the other impacts described.	WI03
8054	Even more glaring, however, is the near complete lack of analysis of the cumulative impact of the proposed NorthMet action on wildlife, especially the Canada lynx, a federally threatened species, in the context of the total loss of five wildlife corridors and the fact that all of the remaining corridors are or will likely be eliminated, reduced in area, or restricted by mining activities or other encroachments.	WI01, WI03
8110	a critically important fact regarding corridor 17, unbelievably, goes unremarked in the cumulative analysis section of the SDEIS, to wit: Of the remaining wildlife corridors, corridor 17 is the only wildlife corridor which is not--is not--- threatened with direct loss or fragmentation of habitat inside the corridor, thus making it of signal importance in any cumulative analysis of the environmental effects.	WI03
8113	The agency must take a "hard look" at what the cumulative total loss of 5 out of 18 corridors and current of future increases in restrictions of use of all of the remaining 13 corridors means for wildlife protection and habitat preservation. The analysis must be thorough and based on the best available science.	WI03

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8147	The SDEIS then should determine the travel capacity of the remaining impaired 13 corridors, analyze whether they are enough to sustain the Canada Lynx population with special reference to the population residing south of the Mesabi Range, what type of physical pressure does this place on the Lynx survival (how much farther will the lynx have to travel, what are the increased dietary demands due to this additional exertion), which roadless blocks are cut-off from by loss or restriction of the corridors, and were these corridors also popular denning or breeding sites.	WI01, WI02, WI03
8150	There is no reasoned assessment or scientific reports to support that loss of 5 corridors, coupled with restrictions on the remaining ones, is not a significant cumulative impact, rendering the SDEIS inadequate. (Sierra 2910 pp. 29-30; revised by jlh to be consistent with the SDEIS.) No analysis of the cumulative impacts on corridors and access paths that meets the requirements of law appears in the SDEIS.	WI03
8155	The SDEIS is inadequate in that it fails to analyze a full range of possible mitigation measures that would reduce impacts to the Canada Lynx, the Grey Wolf, and other large mammals.	WI01
8168	The agencies must remedy the minimal and pro-forma proposed mitigation actions at closure in the SDEIS and consider other mitigations which flow from taking a hard look at lynx populations survival needs, travel habits, and access to important wildlife corridors.	WI01, WI03
8171	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: 1. The planned location of the permanent Category 1 rock pile extends about a mile to the west of the permanently reduced habitat area, the barrier that consists primarily of the fenced pits. It also presents a formidable steep sided massif adding a further impediment to access of wildlife corridor 17. The pile also removes high quality critical habitat north of the permanent fenced pits barrier which seriously impedes access to corridor 17 to and from the east. An important mitigation would therefore result if the Category 1 rock pile were to be backfilled into the west pit. The agencies rejected this recommendation for several reasons with which the Tribal Agency disagreed, as do we in the same terms as the Tribal Agency.	WI01, WI02, WI03
8178	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: The potential for collisions could be reduced by construction of several wildlife travel tunnels under the transportation corridor at points where lynx habitat meets the vehicle corridor. The Transportation and Utility Corridor crosses three streams (p. 4-10; Thumbs 345) which crossings may provide appropriate locations for wildlife tunnels. The culverts containing these streams under the Corridor could be widened to serve as wildlife underpasses. These tunnels could be constructed at the same time as the culverts under the railroad are modified to capture spilled ore from rail transport. The modifications should be completed prior to the onset of actual mining activity.	WI01, WI02, WI03, WI10
8180	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: A portion of the plant site apparently intrudes into wildlife corridor 16 due to prior mining activity, although the exact parameters of the ingress are nowhere detailed in the SDEIS. The area in and around the corridor is said to be of diminished habitat quality due also to prior mining activity, a statement which also lacks detailed description. A plan for improving this degraded area including the corridor itself should be compiled and reclamation should begin at the same time as mining readiness activities commence, that is, about 18 months prior to the onset of active mining activities per se, continued throughout the twenty year life of the mine, and amplified at closing.	WI02, WI03
8183	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: Comprehensive action aimed at reducing noise and vibration emanating from the plant site must be proposed including, but not limited to, the installation of sound insulating materials inside structures and placing vibration absorbing materials under machinery much like that used in the construction of light rail in metropolitan areas.	N04
8189	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: A comprehensive blasting protocol must be compiled with the aim of reducing maximally the effects of noise, vibration, and air blast from this source.	N04

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8194	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: A comprehensive action aimed at reducing noise emanating from the pits, both water treatment facilities, the train loading and dumping stations, and the transportation corridor could include tall sound fences like those found in urban areas along heavily traveled highways. Positioning sound barriers along the transportation corridor, for example, would have the additional effect of directing traveling animals to the passages under the transportation corridor, thus reducing even further the possibility of lynx or wolf/vehicle collisions. The fences should not be constructed, of course, until the passages under the transportation corridor are completed.	N04
8196	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: A more expansive reclamation plan should be developed in order to hasten the day when the fragmented area begins again to resemble the high quality habitat that will be lost by the proposed NorthMet action.	WI02
8200	[The agencies] must consider at least the following and/or other possible actions to mitigate the effects of mining activity on the Canada lynx: Re-vegetation of fragmented areas appears to rely primarily on planting mixtures of native grasses and forbs to stabilize soil. This is inadequate for reestablishing either Snow Shoe hare or lynx habitat; or for that matter, adequate cover for the grey wolf. Plantations of patches of coniferous trees must be interspersed across the area. These tree plantations must be caged in order to prevent destruction by ungulates. An adequate remediation/reclamation plan would be based on the idea of re-establishing satisfactory habitat at the earliest time.	VEG05, WI02
8212	The Moose is a state listed species of special concern. It thus, merits special attention in the SDEIS. But there is almost no mention of the Moose or the impact on Moose habitat of the proposed NorthMet action. This glaring omission makes the SDEIS inadequate...In the hands of PolyMet which has no obligatory responsibility for listed species there will be no Moosemanagement plan and this large area of high quality habitat will be lost forever. It is therefore imperative to maintain federal ownership of the maximum possible acres out of 6,495 acres currently under consideration.	WI01, WI02
8213	If a land exchange is conducted, Alternate B, of those being considered, would eliminate less total acreage, and be of more value to the Moose than the larger preferred plan. However, a rehabilitated "mine site only plan" would be yet better for the Moose because it would eliminate even less of the total acreage (2,719 acres) than proposed by either the preferred or Alternate B plans.	ALT23, WI02
8217	The SDEIS is inadequate because wind rose determinations and subsequent air emissions data, based upon measurements from Hibbing, are not an accurate representation of winds at the mine and plant sites... Mine and Plant Site measurements should have been made, but they were not. In Section 4.2.7.1 (p. 4-427, ff; Thumbs 582, ff.) the Hibbing wind rose model is proposed as comparable to that of the project site. Wind rose models for Virginia or Ely would be more useful than the Hibbing model, which uses annualized data, whereas Virginia's and Ely's are on a monthly basis. Monthly measurements would more accurately reflect the winds from the southwest which are common in these locations from June through September; southwest winds are not common in Hibbing. Ely or Virginia, MN wind rose data are more descriptive representations of winds likely to blow air pollutants into the BWCA and Voyageurs National Park during the months of highest visitor use.	AIR09
8229	In section 5.2.7.1.3 (p. 402, Thumbs 737) the Mine Site and the Plant Site are listed as sources of air pollutant emissions. The rail line that connects these two sites is not included in the air pollutant emissions totals in Table 5.2.7-4 Total Projected Controlled Emissions (tpy). There is no way to know whether adding in rail operations emissions (or what these would amount to) would significantly increase pollutant emissions totals...Air pollutant emissions need to be monitored from all areas of mining operations including mine site, plant site and the rail corridor connecting the two.	AIR13

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8230	It is further noted on p. 402 that there will be two ambient air quality monitors which “are proposed to minimize fugitive dust effects at the mine.” Firstly, monitors themselves can’t minimize dust. Secondly, no mention is made as to exactly where these monitors would be placed or what specific air pollutants they would measure...Placement and number of air monitors is critical. Limiting them to two in number is not sufficient. If the monitors are to providevaluable information to the public, the MPCA and the mine operator (for the purpose of informing their fugitive dust control efforts), those details should be known to PolyMet and disclosed in the SDEIS.	AIR13
8233	The SDEIS is inadequate because it fails to adequately analyze cumulative effect of SO2 and NOx emissions on NAAQS limits under specified likely levels of compliance to MPCA orders. And it fails to provide a more comprehensive analysis of the modeling results and identify significant contributions of the proposed project NorthMet project to any exceedences...the cumulative effect of SO2 and NOx emissions will exceed NAAQS limits. Since there are no guarantees that currently operating taconite facilities will promptly comply with MPCA orders to reduce SO2 and NO2 emissions, the SDEIS should have calculated cumulative results under various scenarios from full compliance to the most likely level of compliance. Additionally, the emissions from the proposed NorthMet project could be contributing significantly to other exceedences of these 1-hour standards. The SDEIS should provide a more comprehensive analysis of the modeling results and identify significant contributions of the proposed project to any exceedences.	AIR09
8237	The SDEIS is inadequate because it does not adequately analyze or describe the implications of the fact that the proposed NorthMet action will compound an already excessive inhalation pollution risk hazard to the region where the mine would be located and create further health hazards...The NorthMet mine will clearly compound an already excessive pollution risk hazard to the region surrounding the mine site create further health hazards. There needs to be a complete health hazard assessment before the process can proceed.	HU01
8245	The SDEIS is deficient because it does not analyze or discuss the effects of employing different levels of pollution control including Best Available Control Technology (BACT) on amphibole fibers, nor the implications of the existing cumulative exceedences, nor the likely lowering of the PM2.5 NAAQS during the 20 year lifetime of the mine...The MCEA recommends that the proposed PolyMet mining operation implement the Best Available Control Technology (BACT). According to this same table (5.2.7-12), PolyMet does not implement the BACT. The SDEIS has no discussion of possible mitigation practices.	AIR07
8249	Examining Table 5.2.7-12 further, it is clear that there is very little room for error in the total 24-hour PM2.5 modeled. The total for mine site and plant site is 34 µg/m against 35ug/cubic m allowed by the NAAQS and MAAQS. These smaller PM2.5 particles are much more dangerous in that they can be inhaled and lodge directly in the lungs according to the Public Health Dept. Additionally, it is likely that the PM2.5 NAAQS will be lowered during the 20 year lifetime of the mine and thus the SDEIS should also disclose how close the area would be to the PM2.5 NAAQS based on the expected level of emissions in addition to the already noted maximum. Given the danger of the amount and type of particulate matter emitted from mining operations, the already high levels of particulates emissions, and the elsewhere noted inadequacies of the wind data require a reanalysis of these crucial health data.	AIR09
8250	The SDEIS is inadequate because of an astounding failure to quantify many aspects of the problem; many sources of greenhouse gases are not included in the calculations; and many statements are conclusory...Voluntary mitigation measures to reduce GHG emission to which PolyMet has committed are described, but they are not quantified (p. 5-433; Thumbs 1341).To see how these measures could reduce GHG emissions by more than 100,000 tpy requires further information such as quantifying other fugitive and mobile sources added to the larger 196,342 figure which don’t count towards PSD. The calculations resulting in this reduction need to be clear and they are not.	AIR01
8252	The mine would occupy and destroy 1000 acres of peatland...“This [amountof peatland destruction] would increase Minnesota’s total annual emissions of CO2 by 2% above 2005 levels.” The SDEIS indicates that long term mitigation measures will offset any CO2 losses from the destruction of wetlands, but immediate effects are not calculated, and the statement is conclusory.	WET13

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8254	There is no plan to capture and sequester the CO <sub>2</sub> or methane that will be released the proposed NorthMet action is initiated. Methane, a gas with 20 times the heat trapping potential of CO <sub>2</sub> , which will be released along with CO <sub>2</sub> as the peat lands are destroyed by mining, is not discussed in the SDEIS. The presumption is that the use of wetland “banking” or constructing new wetlands where none now exist is intended to compensate for the destruction of wetlands that the NorthMet action will destroy. The SDEIS must show evidence that banked wetlands can sequester equivalent quantities of CO <sub>2</sub> and methane.	WET05, WET13
8255	The proposed NorthMet action would seriously undermine extraordinary efforts to retain Minnesota’s peatlands untouched as a primary role in reducing Minnesota’s efforts to reduce its carbon footprint and limit the release of methane. There are assumptions about CO <sub>2</sub> reduction measures by PolyMet which are not substantiated by numerical analysis leading to many conclusory statements.	WET13
8258	The SDEIS fails to analyze whether legal standards regarding mercury will be met. PolyMet has not taken the NEPA mandated “hard look” at problems with mercury. Neither the impacts of mercury deposition in wetlands nor the addition of mercury to groundwater flow through wetlands is assessed in the SDEIS. A proper evaluation of mercury, using the best available science, must be done, and must include the St Louis, Embarrass, and Partridge rivers and the surrounding wetlands. The SDEIS uses a flawed water model that severely underestimates the flow of groundwater. This model cannot be relied on to accurately account for increases of mercury in wetlands.	MERC04, MERC09
8259	The SDEIS only discusses inputs of mercury to the Partridge, St. Louis, and Embarrass Rivers as those discharged from the Waste Water Treatment Plant and Waste Water Treatment Facility. The estimate of increased or decreased loading to the rivers leaves out mercury from air deposition, from leaching to groundwater, and from the transfer of Colby Lake water. When looking at these sources the conclusion that there will be decreased mercury loading is inaccurate. Further, it is not permissible to rely on tradeoffs by increasing mercury into one water body only to hope that there will be decreases in mercury at another water body.	MERC18
8261	The SDEIS must assess the total additional load of mercury to wetlands from all sources (air deposition, groundwater transport, and spillage) and the impact it will have both on the violations of the water quality standards and the mercury level in downstream fish. The SDEIS does not include details on current mercury levels in water in the wetlands that would be impacted, particularly at the mine site. Many wetlands are likely already above the mercury water quality standard, as are the Partridge and Embarrass Rivers and many of their tributaries.	MERC01, MERC09
8262	This project could result in irreversible impacts on Aquatic Resources of National Importance (ARNI). The area contains many bogs, peatlands, the One Hundred Mile Swamp, the St. Louis River which feeds into the Lake Superior Watershed and Great Lakes Basin, and wetlands within the Partridge River watershed which also feeds the Lake Superior Watershed and Great Lakes Basin. The 404 permit application and the SDEIS do not adequately assure that these important water resources can be protected.	PER35
8265	404 permit applicants must have sufficient documentation in order to determine that their project will not violate water quality standards and that discharges will not result in adverse impacts. PolyMet has failed to adequately provide this information. The SDEIS and supporting documents show that discharges will violate effluent standards and applicable water quality standards. The permit application must be denied.	COE03
8270	The SDEIS fails to adequately analyze the current levels of mercury in surrounding water resources, nor the impacts of project caused mercury deposition into these water resources.	MERC16
8276	However, what is missing [from the 404 permit application] and what should, logically, be a part of the overall purpose and need description, is the extent to which this mining operation would serve to offset United States imports of the metals proposed for extraction. It seems misleading to list percentages of United States imports and then report expected extraction quantities at a rate of tons per year. Doing so infers that the proposed mining project has the ability to significantly offset imports, but does not provide the appropriate comparative data.	NEPA02

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8279	PolyMet states there is sufficient income to cover extraction and reclamation costs (p. 15). However, in the discussion of extraction costs, there is no mention regarding whether there is sufficient income to cover wetland mitigation construction, monitoring, repair and maintenance costs. Costs are typically, and sometimes radically, underestimated... PolyMet is proposing experimental wetland mitigation, which may or may not succeed, the cost of which does not seem to have been accounted for in the calculation of development and operating costs.	FIN04, PD25
8283	Wetlands outside of the project area will be monitored for indirect impacts. However, the 404 permit application has very little regarding what would happen if there were significant indirect impacts to wetlands... The SDEIS needs to provide a mitigation plan for indirect impacts on wetlands.	COE02
8284	The SDEIS states that it will capture 100% of surface water run-off. It appears as if the SDEIS is overly optimistic regarding the capabilities of an untried containment system, and it is far more likely that the system will leak at some point in the future. There must be an effective contingency plan and financial penalties in place which will appropriately compensate the taxpayers of Minnesota if the containment system leaks and causes harm and if installation of such a system significantly impacts streams flows and wetland hydrology.	FIN05, FIN10
8285	While wetland boundaries have been delineated in the project area, wetland boundaries on lands proposed for exchange are approximate and not all wetlands were delineated. Unless wetlands on private lands are delineated and there is an extensive, comparable study of wetland functions and values as has occurred within the project area, it should not be assumed that there has been an appropriate examination of wetland functions and values and whether there will be equal exchange.	WET17
8287	The proposed land exchange will exchange high quality wetlands currently on public lands with wetlands that are of lower quality. .. There will be a projected net loss of 6,025.8 acres of wetlands that were on the MBS high biodiversity significance and a net increase of 767, 9 acres that are of moderate biodiversity significance. Exchanging lands containing wetlands will lower quality in terms of functions, values and biological diversity is not in the public interest nor is it an equal exchange.	WET14
8288	[T]he wetland functions and values of these wetlands cannot be appropriately replaced. Wetland mitigation site construction is experimental with respect to construction of open bogs or coniferous bogs. There is not a contingency plan if mitigation fails. There is also not a contingency plan if there are indirect wetland impacts that cannot be restored.	WET01, WET04, WET05
8289	It is troubling to see the great potential for indirect wetland impacts and yet there is no contingency plan in place to deal with such impacts beyond assurances that the appropriate state and federal agencies will resolve such issues should they arise. Currently, the only contingency available to agencies is to require financial assurance, which should be structured in a way that keeps PolyMet's parent company and its shareholders on the hook and meeting their financial obligations.	FIN01, FIN02, FIN11, WET01
8291	The water quality modeling that is used in the SDEIS to support the prediction of meeting water quality standards cannot reliably forecast those values. The model:- has too many deterministic data values trying to represent a complex environment,- does not have enough data available to fully calibrate it,- does not capture the full dynamic of precipitation and drought,- has little or no validation.As such, it is insufficient as a tool to predict the water quality that will result from the project plan.	WR189
8327	More data is needed to better calibrate the modeling for the project and to validate that it is able simulate the movement of contaminants at the plant and mine site. The model can provide good information about how different processes are linked together, but also, some scenarios should be developed based on heavy rainfall and drought events, which, due to our changing climate, will likely become more frequent	WR072, WR077, WR180, WR189

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
8330	The SDEIS water quality modeling for the mine site is based on modeled values of base flow that do not match real world values. The Partridge river base flows are predicted to be way too low when compared to actual measured values... The implication is that the model thinks very little water moves through the groundwater system.	WR003
8332	The SDEIS sorption values are arbitrary and do not represent the complex soil environment of the mine site or plant site.	WR058
8344	The SDEIS uses simplistic proportioning of annual rainfall into monthly portions...this treatment of precipitation does not include variability during the year like a dry summer and a wet fall. One can have dry years and wet years, but no variability within them. Nor does it handle extreme events at all.	WR057, WR077, WR176
8348	How is overall water quality determined? The only standards that the model is addressing are concentration values. However, the EIS is supposed to address environmental impact, not just ability to meet concentration values. Would anyone allow PolyMet to pump water from Colby Lake to add to the flow of the Partridge River just to meet water quality standards? Those metals and sulfates are going somewhere, even if the concentration is lower due to dilution. The total mass of contaminants in the stream may be much higher. What happens to that load when the water evaporates in back waters, marshes and ephemeral flooded ponds? Does the mass of additional sulfate and other metals (mercury, for instance) build up in Colby Lake (Partridge River) or Sabine or Wynne Lakes (Embarrass River)? Does the mass of sulfate lead to an increase in the methyl mercury concentrations in those lakes? Does the high volume carry those pollutants down to Lake Superior and the St. Louis River delta?	MERC08, WR197
8352	The design criterion for large floods in the SDEIS is too low. The SDEIS design for storm precipitation is 4.1 inches for the 25-year, 24-hour event and 5.2 inches for the 100- year, 24-hour event. Although there are some contingency plans to handle events larger than planned, those plans will fail if the basic design is inadequate.	PD22
8355	The SDEIS has several statements about pump capacity that can be expanded or overflow capacity that can be improved, if needed. Of course, the problem is that there are some kinds of failures that could have very large impacts. If the tailings basin fails, it will be too late to consider improvements to the way it handles floodwaters.	PD11
8357	The SDEIS grossly underestimates the impacts of climate change. There is no mention of an increase in extreme weather, both rainfall and droughts...But there is still no capability in the model for extreme rainfall events that are predicted to increase with climate change. Nor is there any real consideration of extended droughts. As a result, the model cannot tell us what their impacts will be.	WR180, WR189
8359	The water quality model has no validation in the real world...As the SDEIS stands, most of the available data was used in calibrating the model and thus is not usable to validate it.	WR106
8360	The SDEIS has not sufficiently considered the impact of chloride compounds in the ore and rock that will be mined. The Category 1 waste rock pile could leach chloride depending on precisely where in the Partridge River Intrusion mining is done.	WR025
8361	The SDEIS claims that briny groundwater will be substantially below the level of the pit even at its deepest extent. However, there is no discussion of chlorine compounds in the mined rock itself. Severson and Hauck reported the presence of liquid drops with very high chlorine concentrations on many of the drill cores from the Partridge River Intrusion...Obviously, the processing of the ore is expected to consume large quantities of hydro-chloric acid so the plant will have to deal with chloride. However, it is not clear how well contained the chloride from waste rock piles might be, and it should be addressed.	WR025

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
8371	The SDEIS provides no estimate(s) of how long post-closure treatments will be required. Failure to provide these estimates deprives the public of the opportunity to assess the potential effects of the project, including the indirect effects, "... which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." [40 C.F.R. § 1508.8.] In addition, failure to provide estimates of the times needed for post-closure treatments deprives the public of the opportunity to evaluate the financial risks associated with the NorthMet project.	WR036
8380	The lead agencies assume that the mining company will exist for centuries after closure. This is not a realistic assumption. Mining companies historically are temporary entities that disband soon after a mine project comes to an end. The most reasonable scenario for long term closure is that a state or federal agency will be responsible for monitoring, maintenance, and cleanup activities because a mining company cannot be held accountable if it no longer exists.	FIN01
8389	Waste treatment in the NorthMet Project will be perpetual, as "perpetual" is defined in standard dictionaries to include, "lasting for an indefinitely long time."...The SDEIS states, "Financial assurance could be required indefinitely and could include self-sustaining instruments as discussed in the following sections." (3.2.2.4.1). This statement is in error because Minnesota rules do not allow for a non-ferrous mining operation that will require indefinite post-closure maintenance. The rules require closure and that it be maintenance free.	PD02
8390	Post-Closure costs approaching or exceeding 500 years must be calculated as, "in perpetuity."	FIN01, FIN05
8394	The wisest decision for Minnesota lawmakers would be to stop this mining project from moving forward due to the fact that it will require long-term water treatment. PolyMet cannot set a timeline for when water treatment will be completed. With absolutely no guarantees, the risk of costly cleanup for generations to come is too great. If PolyMet cannot design a project that adequately reclaims the mining area and treats the water within a reasonable amount of time, they should not be allowed to move forward.	PD03, WR036, WR195
8399	A detailed analysis of financial assurances must be present in the EIS, including financial calculations based on worst-case-scenarios of water quality predictions... information regarding the interests and return on investment rates, and the operating costs should have been included in the EIS.	FIN05, FIN08, FIN13
8401	Even with the best possible financial assurance measures in place, the PolyMet project still poses a significant long term risk to water, including Lake Superior and the St Louis River watershed, results in significant loss of wetlands and wildlife habitat, and still leaves significant undetermined financial risk to taxpayers.	FIN10, FIN11
8405	The specific nature of the PolyMet proposal makes developing effective financial assurance particularly difficult. No one has been able to ascertain with any reasonable certainty how long the PolyMet mine site will require ongoing treatment. The models used in creating the SDEIS document stopped at 200 years for the mine site and 500 years for the tailings basin. However, the SDEIS does not conclude that even these extreme timeframes actually represent an end date for ongoing treatment. Into perpetuity is a long time.	FIN01, FIN05
8411	[T]he SDEIS does not address positive economic possibilities outside of increased mining, such as recreation.	SO04
8414	Because the PolyMet SDEIS fails to otherwise include the cumulative impacts of additional copper-nickel mining projects, such as Twin Metals which is now in the pre-feasibility stage or Teck America which has done a bulk sampling, and fails to acknowledge the intention that the permitting of PolyMet will open the door for the creation of a sulfide mine district within the Duluth Complex --then the SDEIS also fails to acknowledge the over-all destruction of high quality forests, wetlands, and waters in areas of the Arrowhead that are not part of the Iron Range, have never been previously mined, and have been a source of economic support for tourism, recreation, and lake property. By exaggerating the benefits of large scale mining and ignoring the negative impacts of a sulfide mine district, this PolyMet SDEIS is incomplete and erroneous.	CU02, CU04, CU17

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
8418	In addition, the SDEIS ignores the current and expanding impacts to the St. Louis River watershed as a result of occurring and expanding taconite mining. Nowhere, in any environmental review or granting of permits, is any mention made of the cumulative impacts to the St. Louis River watershed, nor in the impact this has upon the regional economy.	CU11
8422	The SDEIS lacks analysis of societal costs related to the high rates of asthma, autism, heart disease, dementia, and cancer likely related to mining pollution	HU01
8428	The SDEIS fails to address the disparity of income within the mining area economy.	SO04
8430	[The SDEIS] fails to address the large disparity in mining jobs that favor men over women and how this contributes to over-all economic and societal balance.	SO04
8437	The SDEIS fails to analyze the benefits to Canada in comparison to the state of Minnesota. The highest salary benefits will be exported to other countries such as Canada (PolyMet) or Switzerland (Glencore). Chemicals needed for PolyMet's processing plant will be imported from Canada. Major equipment and sources of energy will be imported. Final processing will be done elsewhere.	SO04
8478	The SDEIS presents a one-sided report on the economic benefits of PolyMet to northeast Minnesota. It ignores the extent or quality of jobs that would be lost due to mining impacts. It assumes that the PolyMet proposal is designed entirely to benefit the residents of northeast Minnesota, ignoring the fact that our resources will be extracted and exported, our land denuded and polluted, and potential clean-up costs deferred to future generations, all for the benefit of multinational corporations.	SO04
8481	Just as the ground water and environmental impacts of PolyMet's proposed project lack proper modeling, the economic benefit analysis is equally lacking in rigorous and objective peer review.	SO04
8482	The SDEIS does not adequately analyze the economic benefits of a no-action alternative on the mining proposal.	SO04
8488	The SDEIS presents a one-sided view of the economic benefits of mining activity and totally disregards negative impacts. When water treatment is projected to be needed for 200-500 years or longer, then the long-term economic analysis of this proposed project is inadequate and flawed.	SO01
8497	The SDEIS has not sufficiently analyzed the potential this project has to adversely affect human health. There is great risk to the health of the citizens of Minnesota from long term pollution caused by this project.	HU01
8500	The SDEIS does not address the human risks of exposure via air, water, soil, skin contact, and food and water consumption.	HU01
8502	The SDEIS does not address the increased risks to human health from emissions of highly toxic chemicals and metals.	HU01
8515	There are no data in the SDEIS to show how the proposed sulfide mine operation will prevent leaching into the environment and intake into the body of heavy metals. To what extent will this project add heavy metals and fine particle air pollution to our environment and what will the cumulative effect be to our health? How will the toxicity of pollutants affect vulnerable citizens such as the unborn, children, elderly, those with chronic disease and immunosuppressed individuals?	HU01
8518	Pollution from this mine will be a part of our environment for the next 200 to 500+ years, there must be an analysis of how this will affect human health for us and our future generations. It is the cumulative effects of air pollutants and toxic chemicals in soil, food, and water that result in human diseases. The magnitude of this project will contribute to this burden and the effects to human health must be considered.	HU01

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
8521	The PolyMet SDEIS assessment of the risk to human health from exposure to mineral fibers is inadequate and incorrect.	HU01
8522	The risk is high. There are elevated levels of lung cancers, including mesotheliomas all across the Mesabi Iron range. Minnesota Department of Health studies and University of Minnesota studies have found mesotheliomas are 200% higher than expected. For workers on the Iron Range, the risk of incurring mesothelioma rose about 3% per year worked. Lung cancers are above expected by 20%. Thus, the risk of disease is not insubstantial.	HU05
8523	The SDEIS claims only "asbestos" fibers are hazardous, but two lines of evidence make this claim suspect...[A] non-asbestiform amphibole mineral found near to the PolyMet proposed mine has been shown to be just as carcinogenic as commercial amphibole asbestos.	HU05
8524	[T]he SDEIS cannot rely on the fact that the amphibole fibers will mostly be cleavage fragments to conclude that the risk is minimal. They cannot rely on the fibers having an aspect ratio less than 20:1 to claim they are not hazardous.	HU01
8530	There are amphibole minerals in the ore that PolyMet will be mining. Even though it is likely that the presence of asbestos is low, fibers generated by the mining and crushing of the rock are hazardous and should be contained.	HU05
8534	The SDEIS needs to seriously consider the impact of the fibers that the PolyMet project will create and disseminate. At a minimum, roads and tailings should be treated with a dust suppressant. Monitoring should be established in other communities than Hoyt Lakes. Finally, the dust should be handled and treated as hazardous.	AIR03
8539	The potential release of asbestos-like fibers from PolyMet has not been adequately analyzed, even though the SDEIS states that "potential public health risks of uncertain magnitude" could be expected.	HU01
8542	To comply with the wild rice sulfate standard, the PolyMet project relies on engineering controls that capture and treat mine related effluent. These controls must function perfectly for hundreds of years. It is unrealistic to assume that any treatment facility can be properly maintained or managed for 200 to 500 years. It is also unrealistic to assume that seepage from mine pits, waste rock piles, and tailings can be controlled through any type of water management system.	WR128
8544	All of the PolyMet predictions regarding discharge fail to consider the effects of fractures on discharge to groundwater and surface water.	WR011, WR012
8546	Existing groundwater contamination from the previous mining activities is still an issue near the LTV tailings basin and mine pits. The lead agencies need to demonstrate that this legacy pollution can be cleaned up and controlled before permitting new polluting operations on top of existing ones.	HAZ05
8550	The proposed project would severely disrupt surface and groundwater hydrology in the wetlands surrounding the proposed mine features. The SDEIS must take this into account by including a complete set of available data. The methodology in the SDEIS relies on impacts observed at other sites. With current types of access to information, this is totally unacceptable.	WR058, WR064, WR105, WR112, WR119, WR120, WR183
8552	Wetlands in the 100 mile swamp are ecologically significant, provide important habitat for a large variety of animals and have been found to be aquatic resources of national importance. Loss of these functions, particularly forested wetlands, are irreplaceable.	WET19
8553	Thousands of acres of high quality wetlands would be filled and indirectly impacted by hydrologic changes. In addition to the approximately 1000 acres of direct fill this analysis indicates approximately 5700 acres of wetlands would be severely impacted. Mitigation for indirect impacts is not included in the SDEIS. To permit a new project of this type at the cost of such a significant loss of wetlands is reason enough for a No Action Alternative.	WET01

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
8554	The word “moose” does not appear at all in the SDEIS cumulative effects analysis. As of August 19, 2013, moose are now proposed to be listed as a MNDR species of concern. It is premature to move this SDEIS forward without addressing impacts to this iconic species.	WI01
8558	It is likely that wind-blown dust particles containing sulfate compounds that are emitted from mining activities could contaminate wetlands, lakes, and streams near the project site and could cause harm to the Species of Special Concern that have been found in this area and to the animals that depend on these plants for food.	WI01, WI04
8560	The cumulative effect of 24 hour/day, seven days/week of heavy industrial and blasting noise on sensitive wildlife has not been addressed.	WI05
8561	MN Rule 6132.3200 does not allow perpetual treatment: “To receive a permit to mine, the permittee must be able to close the mine in such a way that it is stable, free of hazards, minimizes hydrologic impact and release of substances, and is maintenance free.” The PolyMet SDEIS states that “longterm” (>500 years at the Plant Site and >200 years at the Mine Site) treatment of wastewater is needed which means the site will not be maintenance free at closure.	PD02
8564	The regulatory agencies cannot assume that a proposed project of this size and scope will not result in changes to the average stream of flow of the Partridge and Embarrass Rivers.	WR183, WR186
11088	The NorthMet SDEIS in many particulars deviates from the statutory charge of protecting the environment. Some of these deviations are express and others merely implied by the failure to consider, or to take a “hard look” at uncertain or unsubstantiated conclusions...Many of the inadequacies of the SDEIS, outlined herein in detail (concerning alternatives, cumulative effects, impact on wildlife, financial assurances, acid mine drainage, etc.) indicate that the Agencies are balancing risks to the environment vs. economic factors.	CU14
11095	Wetland function analysis is inaccurate. It is likely, in the foreseeable future, that the additional 3,810 acres of buffer forests and wetlands would be adversely and significantly altered by mining or use of the surface to support mining, etc. If PolyMet does not plan to destroy the surface, then a protective covenant (such as the Weeks Act now provides) can be put on the buffer lands.... Will the additional 3,810 acres of buffer Lands be losing their Weeks Act protections against strip mining? If in the foreseeable future the 3,810 acres won't be used for mining, why wouldn't the protective covenants from the Weeks Act deed restrictions continue on the lands?	LAN02, LAN06
11416	Clearly the project does not meet the stated purpose and need of the project. The mineral estate and the potential for mining, as well as the split-estate of the properties in the exchange are inadequately addressed in the proposal.	LAN04
11421	The land exchange appears to be a scheme to remove Weeks Act protections on USFS lands against strip mining. Over half the mineral estate in the Superior National Forest is severed, is the USFS going to land exchange all of the lands that have "conflicts" between the mineral and surface estates?	LAN02, LAN04
11438	The Mineral Estate is not being adequately addressed. The USFS federal lands, and the mineral estate of the non-federal lands, appear to be severed. The severed minerals estate on the nonfederal lands devalues them. The Federal lands have valuable controlling covenants that protect the surface estate. In addition, the USFS makes no mention of placing Weeks Act protections upon the non-federal lands PolyMet wants to exchange. The true economic value of the surface estate to PolyMet, including gaining the ability to destroy the surface by strip mining, should be included in the valuation.	LAN02, LAN04

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
11627	Potential loss of the additional 3,810 acres of buffer Lands (over and above the mine site) and wetlands needs to be analyzed. It is likely that the buffer Lands will be mined or destroyed by mining, or by the use of the surface for stockpiles, etc., in the foreseeable future. The additional federal buffer lands in the proposed exchange most likely will be used to facilitate and expedite future mining. This needs to be addressed in the EIS...Why is the USFS facilitating future mining projects? The mining and/ or destruction of the surface of the additional 3,810 acres must be addressed in the environmental review process. Has PolyMet optioned the minerals from RGGS on the lands?	LAN04, LAN06
11638	One of the major flaws with the SDEIS is it fails to disclose the history of copper mineral and hard rock mining projects and the environmental disasters that have taken place at other mine sites. This omission violates NEPA's disclosure requirements. There needs to be an analysis and comparison of similar mining projects that have occurred throughout the country and the effects and consequences of the environmental impacts that accompanied them.	PD26
11639	The SDEIS lists several projects as "speculative" and thus excluded them from the cumulative effects analysis. Many of these projects are quite far along and it is important to consider future projects as well as past and present projects. These projects should be included in the cumulative effects discussion.	CU02
11641	In addition to omitted mining projects, there are many vegetation management projects conducted by the Forest Service that should be included in the cumulative effects analysis. Some of these include: the Kabetogama Project, the Mixed Use Motorized Use Project, the Pearl Project, the Glacier Project, the Skibo Project, the Tracks Project, the Birch Project, the Echo Trail Project, the Travel Management Plan of 2009, the Pelican Project, the Tracks Project, the Virginia Project, and the Big Grass Project. Simply listing "forestry practices" as part of the analysis is not sufficient.	CU09
11648	Mining activities from the NorthMet site and operations originating at other mine sites may contaminate lakes, streams, and wetlands around the project area and downstream. Pollutants that get into moving waters such as rivers, streams, and groundwater will have far-reaching effects on wildlife....The SDEIS goes on to conclude that the project is unlikely to cause a cumulative impact to surrounding wildlife species and aquatic ecosystems. This conclusion cannot be made because it is not based on an appropriate, relevant, orlegally adequate analysis.	WI04, WI08
11650	Ore-dust contains many contaminants and these contaminants will accumulate in the environment over the lifespan of mining operations. The rail transfer hopper and the rail car loading conveyer and platform should be enclosedto minimize the amount of dust that will escape. Additionally the rail cars should not be open-top.	PD36
11680	Rail cars will be used to transport ore, side-dump cars are supposed to minimize spillage, but spillage will still occur. It seems certain that these areas will have ore residuals and that completely cleaning up all surrounding sediments will be nearly impossible. How will these areas be contained?What will happen when stormwater comes into contact with these areas? What will prevent stormwater from coming into contact with dangerous ore residuals and carrying them into the surrounding environment?	PD36
11687	The Category 1 stockpile water containment system should have a permeability of 1x10-6 cm/sec or less for the cutoff walls for the Category 1 waste rock and the tailings cutoff wall. For the Category 2/3 and 4 Stockpiles and Ore Surge Pile Liners, all liners made of natural materials should have a permeability of 1x10-6 cm/sec or lower.	PD15
11688	No site stormwater or any other runoff from any ponds should be draining into the Partridge River, any of its tributaries, Trimble Creek, Colby Lake, or any other streams, rivers, or lakes. The potential for disastrous effects is far too great. All runoff and stormwater must be contained and kept from polluting the surrounding environment.	PD04

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
11937	The precise swath of land that is included in the south and southwest access paths is uncertain because the agencies have failed to identify the specific parcels of land they refer to.	WI03
11939	The new land exchange proposal described here is similar to the “mine site only” proposal which was erroneously rejected for consideration by the agencies (See Item 6). The “mine site only” option would resolve some of the problems discussed in this section. However, a new land exchange proposal can be designed to provide better defined eastern, southern, and southwest access paths to corridor 17, preserve the maximum possible needed high quality habitat, add to significant area to the federal lands, and limit the size of the exchange to the minimum size required to fulfill the purpose of the proposed NorthMet action.	ALT23
11942	The agencies routinely use the conditional form of speech in their descriptions of environmental effects. Intentional or not, the language style often obscures more than enlightens.	NEPA07
11965	The proposed project will result in hundreds of acres of peat bogs being destroyed, which means that hundreds of acres of Hg (mercury) sequestering surface will be permanently lost to the Lake Superior watershed. The proposal to replace lost wetlands with artificially constructed wetlands in Aitkin and Pine counties having disproportionately less peat bog surface and are located in different watersheds, which will result in significant mercury impacts to the Lake Superior watershed.	WET03, WET05
11978	Mitigation sites will be just one year into construction, and because there is some experimental methodology being proposed, there is no assurance there will be type for type replacement and no assurance there will be adequate replacement of wetland functions and values. Frankly, the functions and values of the wetlands at the mine site cannot be replaced through wetland mitigation as the wetlands that would be impacted by this project rated by the Minnesota Biological Survey as having high biodiversity significance. Such wetlands have had little or no human disturbance...There are no wetland mitigation sites that have successfully restored or created an open bog or coniferous bog, and therefore, there is no template to determine success.	COE05
11979	The flotation tailings basin (FTB) containment system will decrease the amount of stream flow to 4 tributaries around the tailings basin. Such flows are proposed to be augmented by waste water treatment plant (WWTP) effluent and, secondarily, by taking water from Colby Lake. If, as a result of construction of the FTB containment system, there will be a lack of water to tributaries, it seems there would also be a lack of water flowing to adjacent wetlands. Although some wetlands will be monitored for hydrological and vegetation changes, it seems as if the extent of monitoring is not sufficient to ensure there are no secondary wetland impacts.	WET12
11982	The SDEIS and 404 permit application states that wetland boundaries were mapped in the field after an extensive off site review. The SDEIS states that the working group approved wetland delineation on March 30, 2011. There were updates between April 2011 and fall 2012. Wetland boundaries were again refined in 2013. Boundaries were refined, but no apparent description of what was refined or how boundaries were altered. If boundaries were approved on March 30, 2011, what was the basis for refinement? Furthermore, with all the refinements, can it really be known that wetland boundaries are accurate? Are there more wetlands present than mapped?	COE05
11994	Are leaching rates, hydrologic conductivity, ground water flows, dispersion, sorption rates, and other properties tied to precipitation inputs in the model? From the reference material provided, it does not appear that they are. Does that model run know that there was a sixmonth drought? Many or all of these parameters change with changing hydrological conditions (dry or saturated soil, hydrologic pressure). As it is currently deployed, the model simulates these changes in a random way. That is entirely appropriate when evaluating independent uncertainties, but it will not work when many of the parameters are correlated.	WR077, WR189

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<b>Sender Name (Submission ID)</b>	Sierra Club Northstar Chapter (42950)	
11995	The highest concentrations of contaminants may occur during or just following extreme droughts. Because the model does not address drought (other than low annual precipitation portioned through the year) in any significant way it would miss these potentially harmful events. It does not adjust leaching rates to drought or wet-dry cycles. Thus, it will inevitably underestimate the actual leaching that is occurring.	WR077
11997	An assessment of risk where there is a high likelihood of damage being caused by extreme events is not a candidate for probabilistic modeling. The modeling can help figure out how processes are linked, but determining uncertainties on the tails of the distributions is very difficult. It would be useful to see a scenario analysis of drought and flood. That would provide a better idea of the risk involved with those events.	WR077, WR189
12009	PolyMet has not demonstrated that it is capable of paying for collection and treatment of water for hundreds of years. PolyMet has described its water treatment technology with specificity, and can even tell you the cost to treat each thousand gallons of water. PolyMet has designed and has precise schematics for all barriers and collection systems. The drawings are all available in the public documents. They are not in the SDEIS, but we do have great detail about PolyMet's mine plan. The DNR has significant detail about things like the longevity of liner systems on the site. On the other hand, they claim they do not have sufficient information for financial assurance at this point and that the plan is not final and could change. But that is true of all analysis in the SDEIS, and is not a reason not to make those calculations based on the mine plan we have today.	PD25, PD29
12010	PolyMet has projections on financial assurance. They are printed in the SDEIS. The DNR has accepted these numbers, and yet there is no documentation to prove that these numbers are reasonable or based on acceptable assumptions. The state of Minnesota should not be relying on estimates from parties with a vested interest in the outcome.	FIN05
12014	Taxpayers around the country have been left responsible for the financial costs of cleanup when mining companies declare bankruptcy at the end of their mining operation. There is nothing currently in Minnesota law that requires parent companies or majority shareholders to be parties on a permit to mine, issued by the state, which could help to address this problem.	FIN01, FIN10
12019	More recently (2008), higher amphibole fiber levels occurred in the air of Babbitt when the wind was blowing from the south – the direction of the Peter Mitchell Pit. The SDEIS does not consider sources other than the plant as source of fibers, but the mine could easily be cumulative with the Peter Mitchell Pit in producing fiber concentrations in nearby communities.	AIR03
12026	Hydrological and water quality cumulative effects must incorporate the entire St. Louis River watershed. Existing mining discharges have resulted in elevated concentrations of pollutants that persist far downstream in the St. Louis River.	AQ26
12027	We agree that groundwater pollutant travel times have been underestimated and the SDEIS projections are inadequate. Cumulative impacts to groundwater and surface water quality and quantity must be included in the SDEIS.	WR024, WR042, WR064, WR167
12028	We agree that benefits of a No Action Alternative must include improvement in water quality due to the Cliffs Consent Decree.	ALT14
12029	We disagree with agency conclusions that projected mining will have no impact on water quality, based upon not exceeding applicable water quality standards. This is a false conclusion--no existing mine operation in northeast Minnesota is consistently meeting water standards. Mining by its very nature impacts the quality and quantity of water. The claim that proposed copper-nickel sulfide mining will not impact water quality can only be based upon false modeling and/or assumptions.	PD26
12030	We agree with the Tribes that it is impossible to properly mitigate for losses to the landscape and ecosystem based upon the scope of the mining operations, the intensity of industrial operations, and the geological chemistry that results from blasting, crushing, grinding, and processing sulfide ores.	PD01

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<b>Sender Name (Submission ID)</b> Sierra Club Northstar Chapter (42950)		
12979	References attached regarding Geology and School Land Trust lands in BWCAW.	REF01
12988	References attached regarding Cumulative Effects and the impacts of heavy metals from mining.	REF01
14813	I am emailing to request a 180 day comment period for the Northmet Mining project. The PolyMet SDEIS is extremely long and I need extra time to be able to read it.	NEPA07
<b>Sender Name (Submission ID)</b> Signe Martell (43071)		
11235	I am asking you to please say no to allowing the PolyMet sulfide mining to take place. Our water, air, & entire environment will be spewed with toxins which will affect all living beings.	HU03
<b>Sender Name (Submission ID)</b> Simon Gretton (40176)		
6598	I do not think this project should be allowed to go ahead because of it's potential impacts on Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations, and cumulative impacts from mining	SO02
6600	PolyMet spokes people talk of job creation, but as a resident of North East Minnesota who lives only a little above the poverty level, I feel strongly that a few dozen or even several hundred jobs are not worth long term damage to our environment.	SO01
6602	An additional fear is that if this project is given the go ahead, it will open the door to even bigger sulfide mining projects by Twin Metals and others	CU04
6605	Given that runoff water from the site will need treatment for some 500 years, the chance of significant pollution at some point seems highly likely.	PD03
6634	PolyMet spokes people talk of job creation, but as a resident of North East Minnesota who lives only a little above the poverty level, I feel strongly that a few dozen or even several hundred jobs are not worth long term damage to our environment.	SO02
6636	it's worth noting the economic benefits of metal mining tend to be very volatile leading to long term downturns and the decline of local communities	SO02
11670	DNR documents show groundwater base flow is 200-300% higher than the rate used in PolyMet's analysis. It seems that neither the SDEIS nor the sulfide mine project are based on good science.	PD29, WR003
11671	Given the extensive history of sulfide mining pollution and the potential long term threat to receiving waters... this project should be rejected.	WR195
12353	as a resident of North East Minnesota who lives only a little above the poverty level, I feel strongly that a few dozen or even several hundred jobs are not worth long term damage to our environment.	SO01
12354	An additional fear is that if this project is given the go ahead, it will open the door to even bigger sulfide mining projects by Twin Metals and others.	CU04
13035	I feel strongly that a few dozen or even several hundred jobs are not worth long term damage to our environment.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Simon Gretton (40176)		
13038	I do not think this project should be allowed to go ahead because of it's potential impacts on Minnesota's natural resources and public health, including: risks to water quality, loss of wetlands, harm to wildlife such as the threatened lynx and declining moose populations, and cumulative impacts from mining.	HU03
14113	As far as I can tell there has not been a sulfide mining site that had not resulted in significant long term pollution. Given that runoff water from the site will need treatment for some 500 years, the chance of significant pollution at some point seems highly likely.	PD26, WR023, WR195
<b>Sender Name (Submission ID)</b> Siri Lindquist (54535)		
19168	Please re-write the EIS until there is more information or more examples of successful mining without long term pollution. Past mining experience, have seriously shown that the long term safety or isolation of the waste cannot be guaranteed.	PD26
19169	The tailings and impact on the land of the unused material from this mining. Think about the total picture of the future—the sulfuric iron will seriously affect the land and water of the area, and the ecological changes that cannot be undone. To preserve the waste from running into the land should be important.	GEN01
19170	Put the responsibility clearly on Polymet, and think about how it is impossible to ensure 500 years of securing the waste. 10 years of mining for 500 years of after effects or possible pollution if it fails.	FIN01
<b>Sender Name (Submission ID)</b> Siyanda Elizabeth (15659)		
8644	This project would violate water quality standards for generations to come.	WR038
11001	Why would we sacrifice the quality of our land and water to provide economic benefit for a few individuals in the mining industry?	SO01
<b>Sender Name (Submission ID)</b> Skip Fay (57975)		
19863	Even if you can "mitigate" risk, the current natural state is too valuable, and our water is at risk without a mine.	PD01
<b>Sender Name (Submission ID)</b> solfrid ladstein (17725)		
14622	The PolyMet NorthMet SDEIS does not adequately examine the risks to worker safety and public health from asbestos-like fibers found in the rocks that they propose to mine. I ask the DNR to require a more comprehensive public health assessment of the risk to workers and the public than what PolyMet has provided in the SDEIS.	HU04
14624	A number of mesothelioma cases were found in mine workers who worked in the LTV Erie Plant that PolyMet proposes to use as part of their mine plan, and the SDEIS inaccurately characterizes a University of Minnesota study of mesothelioma in mine worker as showing that this risk came exclusively from the use of commercial asbestos products in the mine. In fact, the University of Minnesota did not exonerate dust from crushing ore, and is continuing to study the health impact of exposure to short amphibole fibers of the type contained in the ore that PolyMet would mine and process.	HU07
14625	the DNR should: ... Revise the SDEIS and conduct a formal health assessment of the risk to public health and worker safety from the amphibole fibers present in the ore at the PolyMet mine site. The SDEIS should specifically conduct a formal health assessment of the risks from asbestos-like fibers less than 5 microns in length	HU04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> solfrid ladstein (17725)		
14627	[The MDNR should]... Revise the SDEIS to provide details of the air monitoring at the mine and plant site and in nearby communities, and describe contingency plans to address the risk to public health and worker safety if asbestos-like fibers are detected during construction, operation, closure and post-closure	AIR03
14628	[The MDNR should]... Revise the SDEIS to eliminate inaccurate characterizations of the University of Minnesota mesothelioma study. Specifically, eliminate statements that imply that commercial asbestos is the primary risk factor for mesothelioma risk	HU07
<b>Sender Name (Submission ID)</b> Sonja Meintsma (47095)		
16569	The Boundary Waters are a sacred place for many Minnesotans and Americans--I urge you to ensure the protection of these lands.	WILD02
<b>Sender Name (Submission ID)</b> Sonja Misch (41798)		
4689	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	WR035
<b>Sender Name (Submission ID)</b> Sonya Mirus (46931)		
10836	I value the clean water and unsullied natural areas. The proposed PolyMet mine would destroy what I love most about this area. It is not a sustainable source of jobs, and it would greatly deteriorate the quality of life for human residents and wildlife, not to mention decimating the local tourism industry.	SO01
16375	I value the clean water and unsullied natural areas. The proposed PolyMet mine would destroy what I love most about this area. It is not a sustainable source of jobs, and it would greatly deteriorate the quality of life for human residents and wildlife, not to mention decimating the local tourism industry.	GEN03
<b>Sender Name (Submission ID)</b> Sophie Justinak (38341)		
9357	The pollution from the PolyMet proposal that would leak into ground water, and which would affect surface water will just add to the list of Minnesota's impaired waters. Additionally, the proposal includes the destruction of vital peat bog habitat, and carbon-sequestering forest.	WET13, WR020, WR112
9358	The projected 20-year use of the PolyMet mine seems cursory; considering the 100's of years that the waste water treatment facilities will operate after the mine closes, along with the time and money that will have to be spent on the restoration of the surrounding areas.	FIN08, WR128
<b>Sender Name (Submission ID)</b> Soua Xiong (54236)		
16813	The SDEIS have a wrong calculation of the map. They left out the half of the one hundreds mile swamp. That means it also leaves the BCWA completely unprotected from the acid mine. There are lacks of evidence that the mining won't go to BCWA, but the mining will only affect Lake Superior. But the map is wrong because Langley Creeks goes to BCWA not Lake Superior.	PD38
16816	There are many possible solutions to protect the BCWA:1. Correct the SDEIS maps and measure in the right calculation of the mining2. Testing the water of the Langley Creek into the BCWA3. More evidence that the mining won't affect the BCWA	WILD01, WR080, WR081, WR111
<b>Sender Name (Submission ID)</b> Spencer Snyder (58070)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Spencer Snyder (58070)	
19869	Clean water means more than profits	SO01
<b>Sender Name (Submission ID)</b>	Stacey Larsen (38607)	
14063	Since [mining] can be done soundly and produce local jobs and revitalize a struggling economy in northern Minnesota, I do not know of any reason why our state would not want to mine these metals...As someone who's job is connected to the mining industry, mining plays a key role in keeping me, as well as hundreds of other Minnesotans, employed.	SO10
<b>Sender Name (Submission ID)</b>	Staci L Drouillard (54854)	
19071	My concerns about PolyMet and any new mining in Minnesota stem from our proven and documented history with mining; not as a sustainable long term economic source, but as a destructive boom and bust industry that takes much more than it gives to surrounding communities.	SO01
19072	Treatment of contaminated water will be required for more than 500 years. The modeling done by PolyMet stopped at year 200 (at the mine site) and year 500 (at the plant site) because that was the point at which it became clear that water quality would not get worse. However, the modeled water quality at 500 years does not come close to meeting water quality standards. In fact, PolyMet's data indicates that for some pollutants, treatment will be needed for millennia. Copper, lead, and sulfate are all pollutants that will impact the St. Louis River for centuries if treatment ends prematurely.	WR035
19073	The SDEIS predicts that the project will not add to sulfate levels ... or other pollution. But this statement is dependent on the predicted rate at which pollutants will flow to the rivers through groundwater, and these predictions are almost certainly wrong. Modeling of groundwater movement at the mine site is based on estimates of flow of the Partridge River that do not come close to reflecting actual conditions...The result is that the predictions may significantly underestimate the amount of sulfates and other pollutants that will enter the Partridge River.	WR086, WR091
19075	The tailings basin estimate is based on unrealistically optimistic estimates of the effectiveness of the water collection system (and on the assumption that it will operate indefinitely). The result is that the predictions underestimate the amount of sulfates and other pollutants that will enter the Embarrass River and its tributaries	WR018
19078	The St. Louis River downstream from the PolyMet site is already heavily impacted by sulfate. Wild rice production is a fraction of what it once was on the river ...We cannot allow the MPCA and other State agencies allow mining companies to set the sulfate standards. Keep the independently researched and already proven 10 ppl sulfate standard in place for wild rice waters.	VEG04, WR159, WR160
19091	PolyMet's humidity cell testing indicates that mercury will leach from waste rock at more than four times the water quality standard. But PolyMet proposes not to conduct an analysis of the amount of mercury that will enter either the Partridge or the Embarrass River from leakage from waste rock, disturbed peat, mine pits, or tailings. This analysis was done for 28 other constituents, many of which have nowhere near the potential for impacts that mercury does.	MERC16, MERC20, WR034
19093	The SDEIS assesses the impacts of mercury deposition on area lakes, but ignores the streams and rivers. The conclusion that the annual mercury load to the Partridge River will decrease by 1.2 grams and the annual load to the Embarrass River will increase by 0.6 grams does not include deposition from air emissions. That deposition will be significantly greater than the decrease in load predicted in the SDEIS.	MERC23
19096	the SDEIS does not take into account any new power sources that will be required to run large, new mining operations and the effect that these additional power plants will have on mercury pollution in Lake Superior as a direct result of coal-fired power plants around the Lake basin and to our West.	AIR02, MERC10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Staci L Drouillard (54854)		
19099	The existence of toxic fibers in the rock at the Mine Site has not been studied; whether such fibers will be dug up and released to the air is unknown. However, the Northshore Mine is very close by, and it is known to release fine mineral fibers. Minnesota taconite miners in general have a high rate of mesothelioma, a disease that is caused only by breathing fibers.	AIR03
19102	The North Met Mine would completely destroy at least 1,741 acres of high quality ecosystems, which provide habitat for many wildlife species, including Canada lynx, wolves, and moose. Many more acres are likely to be degraded in the area surrounding the mine. Losses will include 1, 7 41 acres of Minnesota Biological Survey sites of High Biodiversity Significance; 698 acres of Jack pine/black spruce forest, which are considered imperiled/vulnerable in Minnesota; and portions of one of only twelve known populations of floating marsh marigold in the state. All of these resources are currently located within the Superior National Forest, and are public resources	WILD02
19132	PolyMet proposes the largest permitted destruction of wetlands in Minnesota history. The majority of the mitigation for the 912 acres of high quality wetlands that would be destroyed outright would occur outside of the St. Louis River basin, so the benefits of wetlands to the river system would be lost. Thousands of additional acres will likely be lost or degraded due to groundwater drawdown, reduced river flow, and the impacts of water and air pollution; no mitigation has been proposed for these losses.	WET01, WET03, WET23
19148	Mines and other development in the Mesabi Iron Range currently create a significant barrier to wildlife migration. Studies have found only 13 to 18 narrow corridors that allow wildlife to move from north to south of the Range. Planned projects and expansions within the taconite industry will severely limit or destroy many of these corridors in the next few years. The NorthMet Mine would further degrade what is already a marginal, but important corridor,	WI03
19150	PolyMet would be responsible for 0.44% of all of Minnesota's greenhouse gas emissions... Minnesota is already highly unlikely to meet its greenhouse gas reduction goals for 2015 and 2025, and this increase would be a significant set-back.	AIR01
19152	PolyMet would ...employ approximately 0.012% of Minnesota's workers...This clearly imbalanced ratio between pollution and jobs benefit seems like a bad deal for Minnesota.	SO01
19157	The Mine Site is on National Forest Land. Rather than requiring PolyMet to comply with Forest Service requirements (which would mean that the mine had to be underground rather than open-pit), the Forest Service is accepting an exchange for a number of smaller parcels scattered throughout the Forest. These other lands do not appear ... to contain the same quality of ecosystem integrity and wildlife habitat as the Mine Site does. The overall effect will be a loss of forest and biodiversity.	LAN02, LAN03
19165	PolyMet does not accurately or completely address the issue of Financial Assurance in the SDEIS or in the business model. They do not provide any substantive details as to how the long term treatment of polluted water will be paid for. Margaret Watkins, a PhD Water Quality Specialist from Grand Portage...calculated that the cost for treating polluted water for more than 500 years could be as much ...One hundred billion dollars!	FIN01, FIN05
<b>Sender Name (Submission ID)</b> Staci Revers (15763)		
828	PolyMet did some revisionist geography to imply that acid drainage from waste rock piles can't flow to the BWCA because the site is on the south side of the Laurentian Divide. In fact, the mine is uphill from a wetland that exists as a divot in the divide and drains down both sides ... The One Hundred Mile Swamp (it's actually a little over 10 miles long). ... I would like PolyMet to do more testing on the flow through the swamp to ensure BWCA is safe.	WET19, WR080
<b>Sender Name (Submission ID)</b> Stacie Whaley (39478)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Stacie Whaley (39478)		
7279	I believe the [NorthMet mining project] environmental review process has been sound and thorough.	NEPA16
7283	The state and federal regulators will ensure that PolyMet’s project design, and its controls and measures will address potential environmental impacts and will meet all state and federal regulations.	PER34
<b>Sender Name (Submission ID)</b> Stan Paczynski (18066)		
13253	I trust in the numerous agencies and facilities that have done their homework and their due diligence. And I have my full trust in what they do. Not only in the jobs and economic stability to the area I think we need to rely on our people doing their job, again, with the agencies and the government entities that are doing the permitting processing and have faith.	NEPA16
<b>Sender Name (Submission ID)</b> Stephanie Digby (18267)		
13887	I have discovered that in the reclaimed water and in the whole reclamation process microorganisms have not been considered...They are environmental indicators and they are also necessary for the health of the water and the water system. They are the start of the food chain. I have been told this has not been considered.	NEPA14
<b>Sender Name (Submission ID)</b> Stephanie Kessler (16244)		
10324	Please consider the long term effects for this short term financial "gain"...who's gain will it be in the end...certainly NOT Minnesotans, left with water to clean up for multiple generations! This is not worth it!	SO01
<b>Sender Name (Submission ID)</b> Stephanie kRawn (5984)		
1964	Wouldn't it be prudent to try to resolve [water] issues by researching ways to not contaminate the water system? ... Please find a way to help the water system in Northern Minnesota remain pure for those who use it AND be able to extract the various minerals you need.	PD01, WR130
1999	Please find a way to help the water system in Northern Minnesota remain pure for those who use it AND be able to extract the various minerals you need.	PD01
<b>Sender Name (Submission ID)</b> Stephanie L Carlson (57148)		
16842	Our precisions resources of water, particularly, along with forest and wildlife, are irreplaceable and are worth far more than any short-term profits to be gained by sulfide mining. The trade-off is not worth it	SO01
<b>Sender Name (Submission ID)</b> Stephanie Onorat (18250)		
13667	Under the risk-benefit analysis, the risks, fact one would be sulfide mining is toxic. It will result in environmental destruction, loss of wildlife, habitat, economic loss, and water contamination for possibly 500 years.	SO01
13668	The flip side of the risk-benefit analysis, the benefit, as we know at this point, can only with certainty be said that PolyMet stands to benefit from this transaction. They will make their fortune and move on, leaving us with currently unquantifiable damage because the flaws in their environmental impact statement have not yet been alleviated.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Stephanie Onorat (18250)		
13669	I would note that PolyMet has not committed to establishing a trust fund with millions of dollars in it so Minnesota can monitor its water for the next 200 to 500 years, which appears to be a certainty.	FIN01, FIN08, FIN11
<b>Sender Name (Submission ID)</b> Stephanie Onorato (9627)		
1335	Have they agreed to put millions into a trust fund for Minnesota's use so we can monitor and possibly clean-up pollution for hundreds of years after they are long gone?	FIN01, FIN08
1337	...there was discussion about the "land-swap" that PolyMet has so generously proposed. I believe the terms involve the government relinquishing control of prime land situated in National Forest (or close to it) for land somewhere - no mention of where. Is it in a swamp? Is the value even remotely comparable to what is being given up?	LAN03, LAN06
1338	At the very least, destruction of habitat, interruption of the life-cycle and feeding/migration habits of wildlife, pollution and NOISE from constant drilling and trucking in the midst of our quiet space.	N04
<b>Sender Name (Submission ID)</b> Stephanie Summers (40119)		
15297	Any plans that rely on keeping systems to protect the environment in place for hundreds of years seems unrealistic if not practically delusional. The mining companies almost never keep their promises and cut corners at the first opportunity. What happens when the company goes out of business or is bought?	PD01
<b>Sender Name (Submission ID)</b> Stephen Dahl (17250)		
2091	It is lacking vital information about long-term water treatment and how it will be paid for.	FIN01
2092	The SDEIS proposes no mitigation for the indirect wetland impacts.	WET01
2093	Additional toxic metals such as mercury, copper, and nickel that are not captured for treatment will damage aquatic organisms and habitats downstream to Lake Superior.	AQ05
2094	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns, and Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Stephen Greenfield (47494)		
12218	I realize that metals have to be mined somewhere, but sulfide mining inevitably leads to heavy metal contamination, and should never be done in a place like the boundary waters that is so connected to multiple major watersheds...the amount of time that we will have to manage the pollution and its costs clearly dwarf any benefits.	WILD02
16728	I realize that metals have to be mined somewhere, but sulfide mining inevitably leads to heavy metal contamination, and should never be done in a place like the boundary waters that is so connected to multiple major watersheds. The revenues look tempting, but the amount of time that we will have to manage the pollution and its costs clearly dwarf any benefits.	SO01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Stephen Greenfield (47494)	
16753	but sulfide mining inevitably leads to heavy metal contamination, and should never be done in a place like the boundary waters that is so connected to multiple major watersheds.	WILD02
16754	he revenues look tempting, but the amount of time that we will have to manage the pollution and its costs clearly dwarf any benefits.	SO01
<b>Sender Name (Submission ID)</b>	stephen hoglund (2)	
6	We have a amazing tourism industry that can only grow, unless this nightmare takes place in North Eastern Minnesota!	SO02
<b>Sender Name (Submission ID)</b>	Stephen J Jay (23471)	
3337	The document is inappropriately long- 2,169 pages, complex, disjointed and confusing to read, with many leading and unsubstantiated statements	NEPA07
3338	Lack of evidence-based explanations for key conclusions is problematic. For example, there are no reasons given why other alternatives that could reduce pollution and impacts on wetlands weren't analyzed.	ALT13
3360	Will the proposed benefits of the projected mining operations significantly outweigh the risks and harms to the environment, population health and the economy?	SO01
3361	There is no comprehensive analysis that incorporates short- term, moderate- term, long- term and very long- term (hundreds of years) estimates of costs and benefits	FIN01, FIN05
3362	Before proceeding with the SDEIS, I respectfully suggest that lead agencies collaborate with the Institute of Medicine, U.S. EPA, American Public Health Association, and other health science- based organizations to convene professionals, including clinicians, researchers and public health experts to examine the implications of sulfide mining on human health, safety and well-being in Minnesota.	HU01
3363	The SDEIS reference material is not easily available; vetting references is realistically impossible, given the limited time allotted for public comments.	NEPA07
3364	The first reference in Master Reference List of References, (p. Ref 3): Addison et al 2008, states that the article was "retrieved" from a URL. When this URL is clicked, a form page of Science Direct appears that requires reference detail to be typed in to access the paper.	NEPA07
3366	the Barbour reference URL, (p. Ref 5) when clicked, showed a "Sorry—that page doesn't exist" error message.	NEPA07
3367	NEPA and MEPA Process (p. ES7) states: "The purpose of the EIS is to inform the public and decision-makers of the proposed actions, assess potential environmental consequences, identify potential mitigation measures and reasonable and feasible alternatives and to address the no-action alternative. This SDEIS fails to achieve these three aims. Most important is the absence of a clear focus on human health in the SDEIS. (Myers, 2014)	HU01
3368	In 6.0 Cumulative Effects (p. 6.1, 6.2) there is no direct mention of cumulative effects in humans	HU02
3370	The DEIS notes that for 45 years to 2000 years after closure the mine pollutants will be discharged into the Partridge River and exceed water quality standards for nickel, sulfate, cobalt, copper and mercury.	WR038

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Stephen J Jay (23471)	
3371	Another section of chapter 4, acknowledges that rock liners may fail to contain contaminated drainage and liners may degrade with contaminated seepage expected to exceed standards for aluminum, antimony, arsenic, fluoride, iron, manganese, sulfate, dioxin, and perhaps beryllium and thallium	WR127
3372	Aluminum may exceed water quality standards for 500 years. Concentration of such toxics in fish that can be eaten by humans presents major implications for human health	AQ05, WR035
3375	The leakage of sulfates with their known role in facilitating mercury methylation, a toxic form of mercury that may cause brain and kidney damage and bio- behavioral disorders in humans, is of concern, as is the long- term implications of sulfate pollution that is detrimental to sustaining growth of wild rice so important to Minnesota Tribal communities?	MERC08
3377	Given the projected pollution with these human toxins and given the myriad uncertainties with long- term management of environmental pollution over hundreds-thousands of years, why is the SDEIS largely silent on human disease implications of sulfide mining?	HU01
3378	Sulfide mines are among the worst polluting mines in the world. (Dartmouth, 2010, 2012; A Mining Truth, 2012; Qu 2012) ... There is no information in this SDEIS that acknowledges this fact and outlines specifically how the proposed project will be unique in preventing what history tells us occurs at every SM site and will occur at the PolyMet sites.	PD01
3383	MN has existing polluted mining sites with Acid Mine Drainage: one off Spruce Road near our residence has been draining acid material into the local environment and watersheds for the past 36 years; another at Dunka LTV mine has been leaching heavy metals into Birch Lake for years. (Sulfide Mining 2014; Sulfide Mining, Spruce Road, 2014). The SDEIS does not address why, with modern technology and knowledge, these sites continue to put AMD into the Minnesota environment.	PD26, WR023
3385	History of sulfide mines is rich with details of major problems that occur during mining operations. Drawing on such history to develop detailed evidence- based contingency planning, would greatly strengthen the SDEIS.	PD22
3386	There is little information provided on contingency planning. For example, the reasonably foreseeable problems that may arise in this project adversely impact waste water treatment and tailings management are not reviewed.	PD22
3387	Historical data can be incorporated in computer models to provide objective estimates of costs associated with such failures and precautions necessary to decrease the rates of mishaps.	FIN05
3388	Sulfide mining presents serious threats to water quality and the health of those persons who drink it. Yet the SDEIS contains flawed methodology and inaccuracies in estimates of water flow through the site. Since the quantity and rate of pollutants entering water sheds and nearby rivers are dependent on accurate estimates of water flow, it is critical that the methodology is accurate. (U.S. EPA, 1994; EPA Letter, 2013)	WR003, WR052, WR086, WR091, WR105
3390	b.Table 4.2.2-2 (Impaired Waters within the Embarrass and Partridge River Watersheds) (p. 4-29) shows data for mercury in fish tissue “found to be above the state’s human health chronic standard.” This Table and other sections in the DEIS fail to present data regarding the “real world” exposure of environments and humans to pollutants—exposure occurs to multiple toxic chemicals not one pollutant at a time. It is the cumulative additive effects of all toxins in the water, air and soil that predict ecosystem degradation and increased risk of human disease. I could not find reference to models that quantified cumulative effects of metals and other toxic chemicals	HU03, MERC03, WR024, WR042, WR071

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<b>Sender Name (Submission ID)</b>	Stephen J Jay (23471)	
3394	Synergism among pollutants adds significantly to the increased risk of environmental degradation and human disease, such as lung cancer. (Cancer Research UK, 2013; Frost, 2011) Many persons (men and women) who will be exposed to mining toxic pollutants in the PolyMet proposed project will be smokers. 18.8% of persons in Minnesota smoke (771,300), including 9.5% of pregnant women. Smokers have a 15 times greater risk of lung cancer than non-smokers. But, exposure of smokers to toxic pollutants from sulfide mining (AMD and air pollution) increases lung cancer risk in smokers. Models used to estimate these exposures and risks should be included in this SDEIS	HU05
3396	toxic pollutants may interact synergistically and have a multiplicative rather than an additive effect on risk. No data are presented regarding this well-known “multiplier” or “amplifier” effect when toxic chemicals coexist in leachates and water and air: arsenic, asbestos and radon, among others. (Hubaux 2012) The result of such exposures may not simply be the sum of risks of each toxic pollutant.	HU01
3398	Pollution will include a myriad of toxins, including sulfuric acid, sulfates, and numerous heavy metals. Millions of gallons of polluted seepage from tailings basin and seepage from the mine site will enter groundwater without being treated.	WR021, WR070, WR108
3399	The PolyMet modeling estimates lack foundation in science and common sense and suffer from false assumptions; as such they seriously detract from the credibility of the project proposal. A realistic and coherent review of remediation options is critical but lacking in this SDEIS. (Johnson, 2005)	WR025, WR130, WR189
3400	It is simply unimaginable that PolyMet can manage 526 acres of land covered by 167 million tons of waste rock with plastic sheeting to prevent contaminated seepage, all the while fixing leaks, contending with forest fires, potential catastrophic weather events; etc	PD22
3401	.A Financial Assurance plan is not provided. Such information is one of the main pillars of an EIS proposal, yet it is not currently required by lead agencies until after the EIS is approved. Thus, there is no public comment period available for input into one of the most critical aspects of the PolyMet proposal	FIN13
3403	There are well considered reasons for requiring public comment for the EIS. Why are these reasons not also valid for the ‘permit to mine’ process?	PER01
3404	Lead agencies need to restore the public comment period before proceeding further with the review process.	NEPA07
3405	. PolyMet’s estimate of closure costs of \$200 million and annual maintenance costs of \$6 million are far lower than estimates of the Grand Portage Band of Ojibway that concluded the set aside for financial assurance at the outset should be approximately \$90.5 billion. Such glaring discrepancies must be reconciled and public comment would help inform the issues	FIN05, FIN13
3407	None [Cost Benefit Analysis] is provided despite the critical importance of answers to cost-benefit questions before decisions are made regarding the fate of the SDEIS. Similarly, there are no related analyses such as cost-effectiveness; cost-utility; economic impact analysis or analysis of social return on investment. Such analyses are mandatory for most all major business enterprises or government projects. Their absence here is troubling	SO04
3408	The model used to calculate alleged benefits is seriously flawed and fails to include numerous factors including but not limited to: i.What fraction of wages paid to mine employees will stay in MN?ii.What will be the impacts on jobs of decrease in the price of copper and other metals? iii.What will be the cost of depressed real estate values, lost recreational activities, social disruptions, and unending clean-up of roads, environment, water, and air? iv.When jobs are lost, what will be the cost to MN for unemployment benefits, healthcare, increased crime rates, government infrastructure, and social service costs resulting from mining? (p. 4-325-4-326) v.What will be the economic costs of degradation of the environment short-term; moderate-term and long-term (in perpetuity)? vi.What will be the cost of displacement of other economic activity?vii.What will be the impacts on tribal rights to hunt, fish and gather (1854 Treaty)?	SO04

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Stephen J Jay (23471)	
3409	The SDEIS provides little specific evidence or detail on Polymet Corporation, its history, organization, stability, partners and finances.	PD23
3411	A detailed plan of how Polymet expects to manage this site for 500 years would be interesting to read but of no relevance to reality for creation of such a plan is impossible	SO04
3412	The quantity and quality of analyses of the potential adverse health impacts of long-term pollution on the health of Minnesota citizens is wholly inadequate in this SDEIS	HU01
3413	b.Human Risks: This SDEIS fails to adequately address the human risks of exposure via air, water, soil, skin contact, and food consumption, to increased emissions of highly toxic chemicals and metals including: iron, copper, arsenic, mercury, lead, cadmium, chromium, cobalt, zinc, manganese, aluminum, thallium, asbestos like fibers, radon, fine particulate matter; silica, sulfate, diesel exhaust, among others, which acting singly or in combination with synergistic effects have been shown to cause disease, death and impaired quality of life in humans. (Goyer, 2004; Nriagu, 1988; U.S. NIOSH, 2014)	HU01
3414	There are no data presented to indicate how the PolyMet proposed sulfide mine operation will prevent leaching into the environment and intake into the body of heavy metals which are among the key promoters of oxidative stress in humans that promote metal-induced and metal enhanced formation of free radicals in the body with resulting toxicity and carcinogenicity. (Jomova 2011; Franco 2009)	HU01
3415	What are the projected impacts of 200 to 500 years of such pollution for human health of Minnesotans? The SDEIS is silent on these matters.	HU01
3416	Fine particle air pollution increases morbidity and mortality and reduction of such pollution improves life expectancy. For every 10 microg/cubic meter decrease of exposure to fine particulate matter the estimated impact on life expectancy is an increase of 0.61 years. (Pope, 2009)	AIR11
3417	It is the cumulative effects of air pollutants and toxic chemicals in water, soil, and food, predict the likelihood of human disease. I found no estimates of such cumulative effects in the SDEIS.	HU01
3420	Chemicals in AMD [acid mine drainage] and other toxic pollutants are powerful “oxidant stressors” that are well known to cause DNA damage in the body. These chemicals cause cancers, including lung cancer; neurodegenerative and autoimmune disorders; heart and blood vessel diseases; diabetes mellitus; Alzheimer’s disease and Parkinson’s disease. (Jomova 2011; Franco, 2009)	HU05
3421	The heavy metals arsenic, nickel-chromium and other toxicants such as fine particles, silica, and diesel exhaust among others cause lung and other cancers in workers and the general population. (De Matteis, 2012; Hubaux, 2012; Cancer Research, 2013 ; Martinez, 2011 ) to what extent will the PolyMet mining add to this chemical burden and risks to health	HU05
3423	Reproductive pathology: is caused by metals and toxic chemicals commonly found in sulfide mining operations. Such chemicals cause damage or death to human embryos and fetuses, neurological damage in the fetal and neonate brain; recently researchers at Harvard have discovered the association of air pollution with Autism Spectrum Disorder (ASD) in a major study (>320 cases and >22,000 control subjects) of the perinatal exposure to metals lead, manganese, mercury, and diesel exhaust and other pollutants. (Roberts, 2013) I found no mention in the SDEIS of potential risks to pregnant women regarding reproductive pathology.	HU01
3424	Please extend the comment period to 180 days.	NEPA07

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Stephen J Jay (23471)	
3467	NorthMet Project Effects on Biological Resources. p. ES37. 912.5 acres of wetlands would be directly affected by mining operations. It is not clear how the impacts of operations will be monitored and impacts remediated or mitigated. Also, re the footprint of 912.5 how was this calculated? Did it include “wetland” and “buffer zones” integral to the health of the wetland? Was a standard definition of “wetland” used? If so please reference this.	WET02, WET04, WET07
3468	p.ES40-41. It is stated “.it would contribute criteria air pollutants during construction, mining and processing activities, though they would be less than applicable Prevention of Significant Deterioration emissions thresholds.” This statement is confusing without clarifications and definitions of terms. It is not clear how it was determined that “these pollutants were all found to be below state and federal risk guidelines.” Was a dynamic model used that included variables that affect air pollutants over time? To what extent will the project add to the cumulative burden of air pollutants over the duration of the project? To assess compliance with NEPA such cumulative effects must be estimated. ( p.ES 41)	AIR09
3471	Presence of Wild Rice within the NorthMet Project Area. p.4-32. There is no mention of the quality of wild rice for human consumption and projected changes in incorporation of mine related chemicals in the wild rice plants over time. Will viability of the plants be impaired? Will the wild rice be safe for human consumption? What is the evidence?	WR157
3472	[Section] 4.2.2.1.4 Mercury. p. 4-37. Mercury is only one of many metals that will be leached into the water through acid mine drainage. What are the concentrations of other chemicals? What are the projections for change in them over 20 yrs? 200 years?	WR038, WR107, WR108
3474	Upper Partridge River Water Quality: p. 4-73. The statement: “Most of these water quality data represent grab samples and the frequency of sampling does not allow a detailed assessment of water quality trends, seasonal effects, or relationship to flow. Nevertheless, collectively, the data can be used to generally characterize water quality in the watershed and draw some comparisons....” These two sentences make no sense; the conclusion in sentence 2 is not supported by conclusions in the first sentence..	WR071
3475	Air Quality 4.2.7: 4-252: The PM 2.5 Standard Primary is 12 micrograms/cubic meter not 15 as indicated in this Table (see <a href="http://www.epa.gov/air/criteria.html">http://www.epa.gov/air/criteria.html</a> )	AIR12
3476	6.0; 6-1: Cumulative Effects: The SDEIS fails to abide by the intent of NEPA and MEPA, in part, because the analyses fail to consider the cumulative effects of incremental environmental impacts that in turn have detrimental effects on human health. (U.S. EPA. HIP)	HU03
3477	On page 6-3 top table is listed: “mercury deposition and bioaccumulation in fish.” What are PolyMet’s projections for bioaccumulation of mercury and other highly toxic metals and other pollutants in human beings?	HU01
3478	Since such exposures are cumulative over the life of the subject exposed, seemingly inconsequential concentrations of pollutants must be quantified. The toxicants bio- accumulate and cause human disease and death.	CU14
<b>Sender Name (Submission ID)</b>	Stephen P Jorgenson (54344)	
17462	Six endangered or threatened species will be affected by the mining operations. Some species, such as the Canada lynx, will be directly affected by noise and possible habitat destruction. Others will be indirectly affected. Eleven plant species will be affected by the mining operations. If these species aren't protected then they will possibly go extinct.	VEG01, WI01, WI02, WI05
17463	Mercury could also be found in small amounts in the tailings pit. If this were to contaminate the water, then there would be a significant loss of plant and wildlife. Copper, cobalt, and nickel could also be released, all of which could affect the water-based organisms, if they were allowed to enter the water.	WR108

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Stephen P Jorgenson (54344)		
17465	A great number of cultural resources will be affected. Although the Sugarbush camp area will not be affected, other nearby resources will be. Parts of the Laurentian Divide will suffer damage. The Divide has been sacred to the Ojibwe people for centuries. The Erie Mining Company Concentrator Building will be affected due its proposed refurbishment and use. The mining will also happen on land that was ceded to the United States by the Bands under the 1854 treaty. This reserved the right for people to hunt, fish, and gather on these lands. With mining operations affecting wildlife, the damage is unknown.	CR01, CR05
17598	The economy of Minnesota, I think, will benefit from the surge of job opportunities and the addition of a new mining branch. The disadvantages, however, seem to outweigh the advantages.	SO01
17599	During mining sulfur dioxide and other gases will be released. The gases will be released throughout the entire processing of the material. Dust will reduce visibility, taking away natural beauty from the surrounding area.	AIR08
<b>Sender Name (Submission ID)</b> Stephen P. Safranski (43108)		
11448	Even with its current scarcity and concern over the environment, the prospect of a project that would impair our clean water resources for 200 to 500 years is significant.	WR115
11451	the potential costs of this project are incalculable.	FIN05, FIN10
<b>Sender Name (Submission ID)</b> Stephen Rossiter (44170)		
8127	The public (i.e. the financial assurance program) should receive much more money up front.	FIN05
8131	Is [Long-term maintenance of the Category 1 Stockpile, including repairing erosion and removal of vegetation] included in the planning of the financial assurance package and how many years is “long-term”?	FIN05
8133	Both Native Americans and low income people rely on a clean natural world for food and water. It would be unjust to force them to accept the risks [of pollution] while others receive the financial benefits.	SO02
8145	Most economic benefits would go abroad while Minnesotans get a few low paying jobs over a few years but the permanent potential for pollution.	SO01
8158	due to carcinogenic nickel dust and other toxic metals that would be present at the sites, I ask that the Minnesota Department of Health do a Health Risk Assessment for the safety of mine workers.	HU04
8160	The SDEIS contains inadequate quantification of unintentional seepage from the mine site that could make its way beyond the mine perimeter thru the groundwater... Minnesota is a very water rich area and attempting a project that requires containing and managing all that water to prevent unacceptable pollution seems foolhardy.	WR089
8161	estimates of the rate of groundwater flow used in the SDEIS seem to be inaccurate and underestimated.	WR052, WR071, WR091
8167	A recent map of fault lines in the project area suggests there may be more routes for groundwater to move thru than acknowledged in the SDEIS... The SDEIS says on page 4-47 that at the mine site “the hydraulic connection between surficial aquifer and underlying bedrock underlying is weak.” But that assertion is not quantified in a meaningful way. Does “weak” mean effectively zero, or, overtime, will the polluted seepage add up to a significant level?	WR010, WR011, WR012, WR014, WR087, WR090, WR168, WR169, WR179

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Stephen Rossiter (44170)		
8169	Were the locations used in the water quality models the same locations that will be considered legal compliance points by the EPA (dilute locations downstream or at the property boundary)?	PD03
8177	the SDEIS claims that Hoyt Lakes treats [for] manganese before distribution to residents. But even if the city can remove the manganese during treatment, who will pay for that treatment? And what about the water quality for nearby residents who operate independent residential wells...?	SO07, WR041, WR128, WR142
8186	the section 404 permit [should] be rejected... Only 27 [acres] of mitigation is currently planned while ~8000 [acres] will be directly or indirectly impacted. Furthermore... current mitigation/restoration/reconstruction abilities are wholly inadequate to functionally replace [peat] wetlands... the plan calls for mitigation to be based on future evaluations [but there are no records of such evaluations]	COE01, COE02
8192	[The mine site would destroy lynx dens and disrupt] 2 of the 13 remaining habitat corridors that allow Lynx to move through the landscape and maintain a more genetically diverse (healthy and thus resilient) population.	WI01, WI02, WI03
8204	parts of the project are designed for 1 in 100 or 1 in 25 year precipitation events, yet these sites will be hazardous for at least 200-500 years! ... No plans or provision for mitigating an unexpected/accidental release are in the SDEIS... For each part of the project, the EIS should include how that part is designed to cope with extremely heavy rains, what chemicals would be released in the case of an overflow, and alternatives that would protect against heavier rains.	PD22
8206	Will [the reject concentrate evaporation pond] be adequately lined? How is this pond protected against extreme rain events? I did not see a discussion of this important pond within the SDEIS.	PD03, PD22
8208	A cumulative effects analysis for mercury in the St. Louis River is not in the SDEIS but it should be. Mercury releases (especially if less than 99.37% of tailings seepage is captured) could affect the fish that would be consumed by the Fond du Lac tribe and the St. Louis estuary ecosystem.	HU03
8211	The assumption that 99.37% of seepage (all but 21 of 3,380 gallons) from the tailings pile will be captured is highly suspect. [There is no evidence to support this claim]... The EIS should include an analysis of the consequences if the percent captured is lower than 99.37%, perhaps 50% or 80%	WR018
8215	Besides the no action alternative, the SDEIS does not compare any alternatives... Other action alternatives that should be analyzed are: more intensive/durable linings underneath and covers over the waste pile and tailings, starting reverse osmosis treatment in year 1, and layouts that minimize acreage of wetland loss.	ALT06, ALT07
8218	It is my opinion that if the science behind something is good, it can be made plain to the general public. In contrast, the science in this entire SDEIS has been anything but clear and simple. For nearly every important point in the SDEIS, the only reference cited is from PolyMet/Barr Engineering. It appears that the lead agencies have accepted PolyMet's assumptions at face value, rather than using their own analyses and judgment.	NEPA15
<b>Sender Name (Submission ID)</b> Stephen Snyder (46084)		
10767	The SDEIS does not adequately address a scenario wherein the party that proposes a major mining project has never before operated a mine. PolyMet is a company that has never generated any revenue or income let alone operated any mine. It is just a front organization for the foreign money that is behind this project. ...The assurances made by a front organization should be given no weight. ... The environmental review should demand commitments from officers of the actual companies that will be operating this controversial mine.	PER02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Stephen Snyder (46084)		
10769	The SDEIS does not adequately address the impact on the nearby Boundary Waters Canoe Area Wilderness if the ground waters in part will leach in that direction. ...Since the route of the ground water flowage is only approximated from the surface flows, the SDEIS fails to adequately address other potential consequences. The wilderness character of the BWCAW is a fundamental asset to Minnesota and any potential impact on its watershed must be thoroughly addressed.	WR080, WR111
10773	The SDEIS does not adequately address the material risks that are presented by the proposed mining of base minerals from sulfide-bearing ores in the wet environment of northeastern Minnesota. Models based on copper-nickel mining in dry environments have no application here. This issue is particularly important because the SDEIS is based on inaccurate projections of surface water flow. Exposure to water is the number one risk here, yet the SDEIS itself in its current form only addresses this issue within its margins of error. There also has been no attempt to study the actual ground water flows below the proposed tailings pond.	WR003, WR025, WR026, WR052, WR060, WR071, WR081, WR086, WR091
10778	The long-term maintenance required during and almost forever after for this proposed mine presents an impossible modeling challenge ... The agencies may be able to model the next 50 or maybe even 100 years with some confidence, but it is ludicrous to think that anyone could prepare an adequate model to predict how the massive byproducts of this proposed mining project will be maintained for the next 500 years. ...how can we evaluate the future environmental degradation that will result from this project if it is approved?	PD29
<b>Sender Name (Submission ID)</b> Stephen Talty (17507)		
1975	the water supplies that trickle down toward the Great Lakes where our water source comes from that is of concern. To risk contamination of water supplies that will affect so many people in so many ways-from abundance of wildlife to fishing to drinking water is irresponsible.	LU06
2101	As you are fully aware of the hazards associated with this type of mining-hundreds of years of pollution and destroying of ecosystems and water supplies, please know that we hope this project will not move forward.	WR195
<b>Sender Name (Submission ID)</b> Steve Adams (41841)		
2047	a project that will contribute toxic metals and sulfate pollution to the St. Louis River watershed -- for 500 years!	WR115
2048	The threat that this project poses to the environment, wild rice, and non-mining-related uses of the land should be enough to nip it in the bud.	LU06
2049	The mining industry's record of evading its fiscal and environmental responsibilities is shameful.	FIN01
<b>Sender Name (Submission ID)</b> Steve Braker (15747)		
11989	...fails to guarantee water quality	WR111
11998	...fails to provide safeguards for things going wrong...fails to provide examples of working sulfide mind operations which hae not caused pollution	PD22
12000	...fails to provide enough local jobs to even consider an economic effect	SO06
<b>Sender Name (Submission ID)</b> Steve Clemens (7020)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steve Clemens (7020)		
444	I am strongly opposed to the proposed Poly-Met mine because of the severe threats to clean drinking water as well as potential pollution to our rivers and Lake Superior.	WR042
449	Short-term (20 years) profits and jobs are a poor risk in face of potential (and probable) long-term environmental damage.	SO01
<b>Sender Name (Submission ID)</b> Steve De Bock (18201)		
13434	It's going to be great for jobs our economy in Minnesota, Northeastern Minnesota, Minnesota in general, and the whole nation, quite frankly... I urge everybody to get behind this and finally let this thing go through	SO10
<b>Sender Name (Submission ID)</b> Steve Debock (18359)		
14652	We embrace this project because of the hundreds and hundreds of new jobs that PolyMet will create either through direct employee instruction or new jobs with their vendors like us.	SO10
<b>Sender Name (Submission ID)</b> Steve El (19992)		
1625	[The SDEIS] claims that since the whole population [of Canada Lynx] in the mine area (perhaps 200 or fewer animals) wouldn't be lost but rather just a few, there is no problem. However, decades of conservation work around the world indisputably show that loss of habitat causes species to go extinct.	WI01, WI02
1626	The SDEIS is explicit (Chap 5-122) about pollution of the Partridge River continuing to be problem "in perpetuity." That is, forever. How can we possibly believe that Polymet will be able to take responsibility for treatment of this pollution in that timescale?	WR035, WR037
14843	I would also add that the area in question is home to an already at-risk population of moose. Moose, of course, depend on wetlands, some 8,000 acres of which will be destroyed. Promises of restoration, even should they be reliably fulfilled, will not come nearly in time to mitigate the destructive effects on the moose population.	WI01, WI02
<b>Sender Name (Submission ID)</b> Steve Gildersleeve (6060)		
1004	Nearly 1,000 acres of high-quality wetlands would thus be destroyed in this region, which has already lost many thousands of acres of wetlands to iron ore and taconite mining.	WET24
1005	The region of the proposed mine is also home to endangered lynx as well as moose, which are dramatically declining. The SDEIS acknowledges that the mine would "adversely impact" over 4,000 acres of wildlife habitat -- much of which is critical lynx habitat. But the document barely mentions moose except to recognize that the mine "will affect moose individuals."	WI01, WI02
1008	According to the EPA, hardrock mining is the country's most toxic industry, and 40 percent of our nation's Superfund sites are devoted to cleaning it up. How will PolyMet's mine be different? The SDEIS supplies no answers.	PD01
1009	Finally, the proposed mine site is on Superior National Forest, where the Forest Service recognizes that open-pit mines are prohibited. But instead of rejecting the mine or considering an underground mine alternative, the Forest Service is proposing to exchange these lands with PolyMet to allow the open-pit mine to proceed. The Forest Service has yet to provide the public with sufficient information concerning this proposed land exchange in order to demonstrate that it is in the public interest.	LAN01, LAN02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steve Gildersleeve (6060)		
1025	But the SDEIS fails to explain how PolyMet can provide financial assurance that the necessary funds will be available for hundreds of years after the mine has closed.	FIN01
<b>Sender Name (Submission ID)</b> Steve J. Nelson (46967)		
10842	1. Protecting Minnesota citizens from future adverse effects of mining on environment with financial assurances, i.e. insurance policy, is critical  Requiring assurances to safeguard against company filing bankruptcy after damaging the environment is critical. Copper/nickel prices will rise and decline over the lifetime of this mining project. Mining companies have used bankruptcy as a business strategy to walk away from their failure to mine responsibly. As a tax payer, I do not want to pay for their mistakes.	FIN01, FIN08, FIN10
10843	2. What contingencies are or will be in place for major catastrophic failures in the mining process?If water processing fails, water holding ponds leak, electrical supply is offline for an extended period...what is the action plant to protect the environment?	PD22
10844	4. The BWCAW is a state and national treasure. Maintaining water quality is critical.Is the current technology, i.e. reverse osmosis, sufficient to handle any sulfide runoff?	WR143
10846	5. No information has been included in the SDEIS concerning the epigenetics of increase consumption of sulfides, copper and nickel on local populations due to emissions and releases into local water system.	HU01
10848	3. Is Minnesota mining policy and regulations sufficient to handle adverse mining effects 20-30 years from now?	PER06
<b>Sender Name (Submission ID)</b> Steve Jorgenson (4140)		
869	It is absolutely immoral to even consider allowing companies to place a mine near a wilderness area, solely for short term profits, and pollute our earth and water in the process, a long term consequence.	CU11
870	Creating jobs is not a good justification; jobs can be created by wind farms, solar power, and many other sustainable industries that benefit the environment instead of destroying it.	SO02
<b>Sender Name (Submission ID)</b> Steve K (6059)		
1534	What type of groundwater contaminates would be introduced into the environment? Have there been longitudinal epidemiological studies of how they effect human and wildlife populations?	HU01
10000	How will this seepage of untreated water (up to 10% of total discharge) into the groundwater effect the potability of groundwater for surrounding residents, flora and fauna, including those in the connected watersheds?What type of groundwater contaminates would be introduced into the environment? Have there been longitudinal epidemiological studies of how they effect human and wildlife populations?	HU01
<b>Sender Name (Submission ID)</b> Steve Kinney (54803)		
18156	I urge the lead agencies to move this positive enterprise to the permitting stage so that northern Minnesota residents -- indeed the whole state and region -- can benefit from the new jobs, additional taxes, essential minerals and brighter economic future PolyMet would deliver.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steve Kinney (54803)		
18157	The exhaustive SDEIS deals with potential challenges intelligently and thoroughly... We have trusted our state and federal scientists, permitting experts and enforcement officials to do their work honorable and completely. I believe they have done the right thing by the people of Minnesota in the past, are doing so now, and will continue to keep our environment clean in the future as science evolves and protective laws and regulations advance.	NEPA16
18158	PolyMet would bring to the Iron Range... hundreds of jobs, millions of dollars in taxes -- including much-needed educational funds -- investment in spin-off industries.	SO10
18159	I have faith that permits to protect our land, water and air will be firmly and fairly enforced... I applaud the work state and federal agencies have already done in closely examining PolyMet's NorthMet project. I trust them to do the right thing and let PolyMet uncover valuable minerals while preserving a beautiful environment that attracted us to a place we now call home.	NEPA16
<b>Sender Name (Submission ID)</b> Steve Koschak (57335)		
18462	not all of the polluted water will be captured for treatment. This is what PolyMet calls minimizing the water pollution in their marketing rhetoric. How is the SDEIS going to address using an antiquated tailings basin which is a leaker? Ten percent of the volume of water that there will be, the waste will not be going into any type of discharge pond. It will not be reclaimed. It will be let go out into the environment. ... Why does the SDEIS not provide a solution to this situation?	WR018, WR070, WR090, WR108
18467	there is no plan for events or failures of PolyMet's water treatment system. It provides no details for what happens in the event of catastrophic accidents or failure for the system to operate for 500 years, during which polluted water is discharged. Daily operations are planned to treat some 6.2 million gallons of water daily. What is going to happen with broken pipes or tailings basin and human errors? ... This mining plant is designed for a 100-year storm, and given the climate change, this design is lacking at best. Scientific studies suggested this facility should be designed for a 500-year storm	PD22
18468	The SDEIS provides no assurance or details on the impact of water quality, on wildlife or on human health if the treatment system fails or there is a breakdown, which is inevitable.	PD22
18469	I have another concern about the water quality analysis and how the samples and the studies were done. One of the water quality testings that they did was done in a dry season. There was very low water flow and they based their figures on low water flow, one of the lowest in decades, and this is what they based their study on. So, we'll have outflow from the water flow and waste not being adequately adjusted to reflect normal water conditions.	WR003
18471	there is a lack of information regarding mercury contamination of fish and ultimately methylmercury in humans. There is an area of homes near to six operating taconite mines and there's already an alarming concentration of mercury and other pollutants.	MERC02, MERC03
18473	There is a lack of alternatives to the probable permanent destruction of some 8,263 (phonetic) acres of land, with some 918 acres being very high-quality irreplaceable wetlands in the St. Louis River watershed. There is no plan to compensate for thousands of acres of wetlands that would be indirectly harmed.	WET01, WET20

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**Comment ID    Comment Text    Theme Codes**

**Sender Name (Submission ID)    Steve Koschak (57335)**

18475 The trade that is to take place with the Land Exchange will be a violation of the Weeks Act (phonetic). The Weeks Act (phonetic) was established to prevent open pit mining on federal land, and this land being the Superior National Forest. This trade and this exchange is going to be setting a precedent to other mining industries across the country, not only in the northern part of Minnesota, but anywhere in the United States where you have a federal park or a federal forest, anywhere where the federal jurisdiction is involved with the land, and all of a sudden the industry comes in and decides they want to start an open pit mine. The land owners and the general public is in jeopardy.    LAN02

18476 the UMD Business and Economics Report (phonetic), which this DEIS was based upon, is flawed because it does not address any associated costs of non-ferrous mining, it is only addressing the benefits. Would you ever build a home without making a list of benefits and the costs, both monetarily and otherwise to you? To come up with a mine plan that weighs heavily on economic gains and determines job gross output, but without weighing other job losses and other economic losses in the area, such as tourism, which is dependent on clean water, clean air and a national forested landscape, and is incompatible with mining? This replacement of economic activity, such as tribal life, fish and hunt, under the 1854 Treaty is flawed at best.    SO04

18477 This model does not take into account the loss of environmental lands, the loss of wetlands, wildlife, wildlife habitats, loss of infrastructure due to mining, and the costs of up and down economic industry related to the inflow and outflow of mining employees. What will be done to offset the loss of real estate value for land owners due to the possible sulfide mine? Present day values have already plummeted to the exploratory sites.    SO04

18479 What are the costs of the federal land? 600 acres of federal lands are going to be gated and then fenced off. What are the costs to the local communities and costs of unemployment benefits and increased claims and other social problems? What is impact of the loss of jobs when the copper prices fall?    SO04

18480 Other studies in the SDEIS, in Section 52-82, they mention nothing about people that live on Birch Lake, recreation on Birch Lake, how a business profits on Birch Lake, all they have in reference to anything on Birch Lake are two campgrounds which are federally owned...There are three resorts, two boat house operations and one canoe operator, and hundreds of private lake homes that are going to be subjected to not only the sound, but the impact of the sound of the air blasts of the sulfide mine.    SO04

18482 Our business caters to 1500 plus resort guests per season and these guests travel down beautiful Birch Lake seeking fish, wildlife, peace and serenity. Where we are now going to be impacted by the sound of blasting. The blasting sound will travel that far and the air blast contours and the air blast effects will be affecting the visitors to the area.    N05

**Sender Name (Submission ID)    Steve L'Abbe (3150)**

7998 What a great economic infusion for the Iron Range and all of Minnesota.    SO10

9548 Polymet has been patient, responsible and transparent.    PER34

**Sender Name (Submission ID)    Steve Olinger (43514)**

8125 There are no copper-nickel mining operations that don't have serious water pollution problems. The Flambeau mine used as an example is really not a good example. It was a much smaller operation that did not stay in business and did have problems.    WR023

8126 While there is an attempt to provide financial assurance, it does not seem realistic.    FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) Steve Olinger (43514)</b>		
15530	While I understand and would hope for job creation in Northern Minnesota, I am concerned about how much we would be sacrificing to supply them.	SO01
<b>Sender Name (Submission ID) Steve Petersen (47236)</b>		
9240	I would like to make the point that if this company who is saying they will guaranty monitoring for years after they are finished mining goes bankrupt at any time after they are do or during their mining operation the state taxpayers are on the hook for the clean up.	FIN01
<b>Sender Name (Submission ID) Steve Schreader (58052)</b>		
19882	With the main benefit being jobs, what happens when the mine closes & what economic impacts will the disruption of the BWCA have on the economy.	SO01
<b>Sender Name (Submission ID) Steve Smith (47070)</b>		
11209	Destroying pristine forest lands and risking the future of our water resources, including native trout streams and Lake Superior is just not worth the supposed 'economic prosperity' a new mine would bring the region.	SO01
11211	Preserving Minnesota's natural beauty and resources for our future generations is worth much more than any short term prosperity a mining operation would bring.	SO01
<b>Sender Name (Submission ID) Steve Snyder (18181)</b>		
3972	...there is no model in this [SDEIS] statement as long as it is that would apply for a 500-year period.	PD29, WR196
3973	Of course, it is the combination of the water and the exposure to the atmosphere to create the sulfuric acid that creates the leaching out of these very toxic metals. In my view it's not adequately addressed in this statement.	WR001
3974	... we have just recently found out that even the basic data with respect to the groundwater flows into the Partridge River are not accurate in this document. That's why the EPA gave the original draft an "F" for its failure to address these type of matters. And yet after that work we come back and have the same type of issue here that needs to be addressed.	PD29, WR003
3975	...the document does not address the fractures in the bedrock that will be below these mining sites, and what this is going to do with the leaching that occurs and where that is going to go and where that is going to end up.	WR010, WR011, WR012, WR071, WR090
3978	... if it turns out those assurances untrue, would PolyMet agree that this mine should be closed down or would it instead lead to hearing that somehow they have to be grandfathered in and be able to continue to operate because they've already done the damage?	AQ30
13400	...within this EIS statement there is very little that addresses the huge concern of operating a mine in a plant such as this in this very water-rich environment. This is not a dry and arid environment that we are looking at here. This is a very wet environment.	PD01
<b>Sender Name (Submission ID) Steve Stratman (39441)</b>		
13546	I believe will eventually be on the wrong side of history and future residents will think we were unwise to create such a black hole of ecological and economic problems.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steve Stratman (39441)		
13548	take the money we would have spent on cleaning the mine pollution and invest it right now into business development and jobs.	NEPA15
13549	The corporation that owns the mine will promise everything, then they'll leave and not fulfill their obligations. It happens every time, regardless what they say to the contrary. We will end up with a hole filled with acid, and we'll have no one to blame but ourselves.	FIN01
<b>Sender Name (Submission ID)</b> Steve Sulivan (54163)		
16059	The forrest is eternal, jobs do not last just say no to mines.	SO01
<b>Sender Name (Submission ID)</b> Steve Weston (43826)		
11830	I believe it is unwise to approve any plan that requires ongoing active management of hazardous mine waste, such as treatment of toxic runoff, after a mine has been closed.	PD06
14953	If the waste cannot be passively contained, but requires ongoing intervention for an indefinite period, there is too much danger that...could result in the treatment infrastructure being abandoned. We today are not capable of promising any action more years in the future than our republic has yet existed.	FIN01
<b>Sender Name (Submission ID)</b> Steve Eggimann (45943)		
10372	The Boundary Waters is one of the crown jewels of our national park system. Like Yosemite, Glacier, and Yellowstone there are no other places like it on earth... I urge you to ... restate the principle that these wild places were set aside for all Minnesotans, all Americans, and all the world so there would be some places unspoiled for all peoples for all time. No economic argument to the contrary is worth consideration. ... Please restate the principle that it is your obligation, the obligation of all of us to preserve these very few wild places for all mankind.	WILD02
<b>Sender Name (Submission ID)</b> Steven & Cynthia Broste (39636)		
7360	In this case, even Lake Superior would be in danger.	CU01
7361	And after 10 years, the area will have lost ...the pristine wilderness that currently draws thousands of people to northern Minnesota.	WILD02
7362	All of this risk (current estimate 100%) for a few hundred jobs for 10 years or so. And after 10 years, the area will have lost the new jobs,	SO01
7363	it doesn't appear that sulfide mining has ever been done without significant, long lasting damage and toxic waste...and accidental releases will be inevitable.	PD22, PD26
7364	I understand that these metals are needed for numerous things we all depend on, but we will need those things in a hundred years as well. ... Maybe at a time far in the future we will have developed better ways to extract these metals and better ways to protect the crown jewels of our state from the clear and present danger that the Polymet project represents.	NEPA03
<b>Sender Name (Submission ID)</b> Steven Amundson (18293)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steven Amundson (18293)		
12470	The only thing that I would consider to be a viable risk would be one that ensures that PolyMet can actually guaranty that there is not only a system that would work to take care of the environment, but also that there would be enough money somewhere set aside to be able to clean up any issues well into the future.	FIN05
12473	If we were to move forward with this project, the only way that I would, as a Minnesotan, agree that it would be feasible, if there was enough money set aside for hundreds of years of cleanup, because I believe that's what will end up being necessary.	FIN05
<b>Sender Name (Submission ID)</b> steven dahlke (46991)		
10894	Delay approval until Polymet Mining has financial assurances of \$500 Trillion or proves -it-First will be safe.	FIN01
<b>Sender Name (Submission ID)</b> Steven DeBoth (43804)		
11819	If what I have read is even close to accurate, in my professional opinion as an analyzer of financial risk, I assure you that the probability of any of today's existing raw material extracting enterprises to still be around 500 years from now is nearly 0%.	FIN01
15074	those who will reap the rewards of this type of mining will be dwarfed by those bearing the risks, financial and otherwise.	SO01
15075	As someone who has spent time in those very same woods, this is as tangible of a selling your soul for a few shiny coins moments as I have ever seen. Those woods are the soul of the state. No amount of money is worth the nature of the risks, especially when the risk estimates are in control of those who will get your soul.	SO01
<b>Sender Name (Submission ID)</b> Steven Eli Kokotovich (57213)		
17143	Before you approve a Polymet mine, you need to be extremely confident that it will not damage the environment. A mistake on your part could be devastating for generations.	PER35
17149	Also, enough money (from Polymet) needs to be set aside (securely) for cleanup and all future monitoring. This cost should not be paid by the taxpayer.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Steven gammon (10736)		
598	My response is to not allow any type of mining that could directly or indirectly allow any type of chemicals into the vital, precious water sources.	WR115
604	These (EIS) statements, other documents and comments concerning the vital and precious water sources of Northeastern Minnesota were well prepared and show genuine appreciation, concern and foresight into the effects of the proposed mining project.	WILD03
<b>Sender Name (Submission ID)</b> Steven George (37819)		
11185	Polymet's tailings pile will have toxic metals and sulfates and the SDEIS proposes the tailings basin will have no liner to contain these toxins... The proposed tailing dump site is on top of old LTV tailings. This tailings dump was designed in the 1950's for taconite tailings and it was built on top of streams to allow drainage through the tailings. How will this pit that was designed to leak possibly manage to contain the toxins safely for 500 years?	PD08, PD10

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Steven George (37819)		
11190	When the Polymet plan was first proposed, the “Scoping Report” said that the EIS had to evaluate “if all tailings will need to be managed in a completely lined basin.” The SDEIS must be redone to analyze the alternative of a completely lined tailings basin. The lined tailings basin alternative should avoid wetlands and streams.	ALT07
11192	The Polymet SDEIS claims that the tailings piles won't cause pollution (page 5-159). Polymet says the project will increase seepage at the LTV tailings dump from 2,202 to 3,380 gallons per minute. The SDEIS claims that with the use of pumps, all except 21 gallons per minute will be contained, which would be a 99.37% collection rate... this collection rate would be unprecedented. The SDEIS doesn't name a single unlined tailings pile that meets these almost perfect results with the use of pumps. The SDEIS must be redone to analyze water quality outcomes if the tailings pile collection rate is not what Polymet claims.	PD08, WR018, WR020, WR090
11198	in Figure 4.1.9 [of the Draft EIS], ...there are at least three streams that ran under the LTV tailings site. One of those streams runs right under Cells 1E and 2E, where they plan to dump the Polymet tailings, and then into Spring Mine Creek. Water is likely to drain through filled over streams as these are the historic drainage routes. Spring mine Creek is already impaired for aquatic life as a result of past mining and has excessive levels of sulfate, aluminum and mercury. (SDEIS, p. 4-122, 4-238). The SDEIS assumes all tailings wastewater will seep to the north side where the pumps will be. The SDEIS must specifically analyze impacts on water quality of seepage that would escape following historic stream drainage beneath the tailings basin.	WR056, WR081, WR104
11202	SDEIS doesn't have a single word addressing the possibility that fractures beneath the tailings site would transport pollutants...Existing tailings seepage already exceeds groundwater standards and on the LTV site, adjacent to the tailings, the SDEIS has documented that Area of Concern #8 has a plume of pollution propagating through fractures. (SDEIS, p. 4-12). The SDEIS must anticipate that tailings contaminants will propagate through fractures and clearly disclose the impacts this leaching through fractures will have on surface and groundwater quality.	WR010, WR012, WR061
11206	Do we really expect Polymet to still exist and be paying for the cleanup and monitoring of the wastes in 500 years, or even 100 years for that matter? Who will this burden fall on?	FIN01
11207	Polymet's plan is completely inadequate in assuring protection of the environment and proper treatment and cleanup. ... I am asking the agencies involved to reject the SDEIS as inadequate and deny Polymet a state permit to mine.	PER35
<b>Sender Name (Submission ID)</b> Steven Graupman (21784)		
8951	I am very concerned with protecting our clean water, but I believe Polymet's plans to mine sulfide ore in northeastern Minnesota as described in the Supplemental Draft Environmental Impact Statement will. I believe that the SDEIS is sufficient and SHOULD be approved, because it details how new mining and processing techniques will be more than sufficient.	WR190
8952	PolyMet would provide many needed jobs and would finally end an economic depression for that area.	SO10
8953	Birds that depend on fish and other aquatic organisms for food might be affected, but their numbers will rebound after mine reclamation.	WI01
<b>Sender Name (Submission ID)</b> Steven Hanke (14895)		
247	Is the Minnesota DNR able to require PolyMet to establish and/or negotiate terms and conditions of employment for the proposed workers prior to the project being approved?	SO06
250	What assurances does the Minnesota DNR have regarding the number of jobs this proposed project will create?	SO06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steven Hanke (14895)		
251	Is any job considered in that calculation, or does it have to be full-time (40+ hours weekly) permanent employment?	SO06
252	How does the DNR calculate the proposed economic impact of the jobs based on the limited information and description provided by PolyMet.	SO04
255	I am concerned by the lack of details regarding the economic impact analysis.	SO04
256	The claims regarding the number of jobs to be provided by the project are vague and lack any effort at substantiation.	SO04
257	The study needs to be extended to include number, type, duration, and pay ranges for those jobs, as well as an analysis of the economic impact to the area surrounding the proposed sites.	SO04
<b>Sender Name (Submission ID)</b> Steven Jorgens (4220)		
10209	I have a very large interest in seeing mining and jobs to return to that area.	SO10
10210	Polymet partnering with GE to have a reverse osmosis system is also very impressive.	WR190
<b>Sender Name (Submission ID)</b> Steven Kraemer (2971)		
12326	I have read that acid mine drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred. Why won't it do the same in the Arrowhead Region of Minnesota?	PD26, WR023
12328	Why incur major risks and costs from sulfide mining which ultimately might far outweigh the short-term job creation benefits of the mine?	SO02
13458	I have read that acid mine drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred. Why won't it do the same in the Arrowhead Region of Minnesota?	WR023
13459	But, why incur major risks and costs from sulfide mining which ultimately might far outweigh the short-term job creation benefits of the mine?	SO01
<b>Sender Name (Submission ID)</b> Steven L Losh (46879)		
8597	The SDEIS shows that Polymet has done a thorough job of addressing these concerns. They have characterized in detail both geology and waters (both surface waters and groundwater) throughout the affected area:	WR190
8600	Although there can always be more information gathered and added to the models (e.g., bedrock permeability, which is likely very low, beneath the tailings basin), I am satisfied that the proposed action will remedy environmental impacts to an acceptable level.	PD28
8602	A double liner at the hydrometallurgical plant site will protect groundwater and surface waters from leakage from that source.	PD28
8604	During mining, Polymet will capture runoff from critical areas such as the waste piles and tailings basin, and route that water through state-of-the-art treatment facilities. Much of the water will be recycled on site, but the water that is discharged will for the most part be of better quality in terms of substances of concern (such as mercury and sulfate, as well as acidity) than the natural waters at the site.	PD28

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Steven L Losh (46879)		
8605	The proposed strategy for capturing groundwater that would otherwise exit from the tailings area – a cutoff wall to bedrock augmented with ditch and collection wells – appears adequate for ensuring water quality. The results of groundwater flow modeling show that, for reasonable conditions, discharge of waters of elevated concentration of various evaluated substances will be minimal to negligible.	PD28
8606	In the case of aluminum (one of the two substances potentially released at excess concentrations), the source of the excess substance is an already-existing reservoir that will be used in reclamation; in the case of lead (the other substance at potentially excess concentrations), the infrequent exceedances will be due to variations in water hardness rather than to actual elevated discharge of lead. Overall, as long as the proposed actions in the SDEIS are followed and monitored, water quality should not be adversely impacted.	PD28
8608	From the SDEIS, it appears that adequate steps will be taken to ensure water quality well into the future. Monitoring wells will be placed outside the perimeter of the tailings basin to further safeguard water quality, and can guide further remediation should it be necessary during and after mining.	PD28
8609	After mining is finished, Polymet’s reclamation plan appears adequate – among other things, the company will backfill pits with otherwise reactive waste rock to submerge it in water, which will isolate it from oxygen and prevent breakdown of sulfide minerals, cap the tailings area with bentonite to minimize oxidation and leaching of tailings, and continue to be responsible for meeting applicable water quality regulations for any water that does flow off site.	PD28
8610	The report is thoroughly researched and vetted by State and Federal regulatory agencies, which appear confident that the Northmet mine will meet if not surpass water quality regulations, and that environmental impacts of all the other aspects of the mining operations will be adequately remedied by Polymet’s proposed actions.	PD28
8611	While the mine and related operations will clearly affect the local environment, this impact will be dealt with in a responsible, sustainable way that can serve as an example to the mining industry worldwide.	PD28
10429	Polymet and the DNR... conducted long-term tests on the oxidation behavior of ore and waste rock containing various amounts and types of sulfide minerals, specifically to evaluate the potential for generation of acid mine drainage and release of heavy metals during oxidation at the surface. Based on these tests, they designed a strategy for storage of various kinds of sulfide-bearing rock that, in conjunction with runoff and groundwater collection and treatment, can be expected to adequately forestall acid mine runoff and leaching of heavy metals into groundwater or surface waters. This is a key concern regarding environmental impact of the proposed action, and Polymet is using a responsible, science-based approach in addressing it.	PD28, WR190
<b>Sender Name (Submission ID)</b> Steven M Kramer (54894)		
18830	...far too many questions remain unanswered -- particle dispersal of waterborne contaminates remains an issue, and the time span of guaranteed oversight by the company is totally inadequate!	FIN01
<b>Sender Name (Submission ID)</b> Steven Ulmen (3145)		
154	The only addition I suggest is the use of hydrogen fuel cells to generate electricity for the Erie plant as well as returning it to the grid.	ALT17

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Steven Ulmen (3145)

580 Polymet comes to us possessing the technology to conduct non-ferrous mining at Northmet as well as the technology to protect the environment during the mining process. Reverse osmosis will treat the waste water to remove sulfides that meet the strict wild rice standard and not cause damage to water runoff at the mine site or in rivers and lakes, all within the standards set by the EPA. All of these technologies have been tested and are effective. Polymet possesses all these technologies and is committed to put them to use in a way that they can mine in a cost-efficient manner and protect northern Minnesota's environment at the same time. PD28

581 Polymet has demonstrated they have the technology to mine Northmet in full compliance with guidelines as established by the Environmental Protection Agency, and will provide funding to continue these environmental processes long after mine closure. They have committed to leave the Northmet site cleaner than it is now and in full compliance with EPA standards for as long as it takes. PD28

**Sender Name (Submission ID)**    Stewart Crosby (11339)

274 To sum up my concerns, I am not confident that the proposed water treatments will work over the timeframe needed to protect existing surface and subsurface water. WR035, WR129

1628 I am opposed to any copper-nickel mining as proposed because I do not believe adequate protection of the surrounding landscape can be guaranteed and I do not believe Minnesotans should have to take such a risk for the benefit of a small number of corporations. SO02

**Sender Name (Submission ID)**    Stewart Mills (18112)

13476 We have tremendous opportunities to grow jobs, to grow prosperity, and grow our economy not only in this area but all across Northern Minnesota, because we have a very interconnected economy. ..project is so well thought out and is so well engineered, and the oversight is so extraordinary, there is absolutely no reason why we cannot have both economic prosperity and clean water so we can hunt and fish and not only enjoy the economy but also enjoy ecology SO10

**Sender Name (Submission ID)**    Stu Astleford (18283)

13994 I believe that the water quality degradation is permanent to the environment and it is not worth polluting a pristine environment that future generations can enjoy for years to come. WR195

13995 ...it is just too risky to put a mine so close to the Boundary Waters, where it will do permanent damage, in my opinion, for generations to come. WILD02

**Sender Name (Submission ID)**    Stu Farnsworth (50049)

13010 The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site. FIN10

**Sender Name (Submission ID)**    Stuart Blee (38496)

13576 Polymet has met the State and Federal requirements regarding what they will do to safeguard the water and air. PER34

**Sender Name (Submission ID)**    Stuart Chastain (47659)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Stuart Chastain (47659)		
7744	I believe that the proposed NorthMet copper/nickel mine is important both for its economic benefit to Minnesota and for its strategic/geopolitical value to the United States.	SO10
7770	Polymet's proposal to ensure there is no long-term seepage of sludge into aquifers is not adequately redundant. The redundancy of the actual sludge barrier is more important than any long-term financial arrangements to cover environmental damage.	WR019, WR130, WR132
<b>Sender Name (Submission ID)</b> Sue Bowman (18108)		
3355	We know how to mine in Northeastern Minnesota. And we do under the strictest standards. If we don't utilize this great resource of mining copper and nickel in Minnesota, these minerals will continue to be mined in places around the world that have little or no environmental regulations whatsoever causing massive pollution to the earth.	SO10
13473	PolyMet will bring some 360 direct jobs and hundreds more spinoff jobs to the area of the state that needs them.	SO10
<b>Sender Name (Submission ID)</b> Sue Carver (15750)		
13154	the polymet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and water quality for hundreds of years, if not forever.	WR115
13155	Recent news that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
13159	The SDEIS must be redone to use a reasonable calculation of the amount of groundwater flow in the Partridge River watershed. Both tribal hydrologists and MDNR staff have determined that the real baseflow is two to three times higher than the number used in the SDEIS. Baseflow affects pollution seepage and impacts on wetlands and streams.	WR003
13160	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows Poly Met to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR022
13161	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet's own reports for the Canada stock exchange reveal significant faults and fractures.	WR010, WR012, WR061, WR069, WR168
13162	The SDEIS must be redone to assess the impacts of slope and dam failure at the mine site waste rock piles and the tailings piles, instead of just assuming that no failure can happen. (SDEIS, p. 5-546). PolyMet's tailings would be placed on top of huge, leaky and unstable existing tailings piles.	GT07, GT15
13164	The SDEIS must be redone to provide a reasonable range of probabilities for liner leakage at the hydrometallurgical waste dump, rather than just assuming zero leaks forever. The SDEIS should also disclose the volume and level of contamination of this permanent, highly toxic waste facility.	PD17
13165	The SDEIS must be redone to assess the impacts of heavy rains and flooding at the mine site, particularly at the "west equalization basin," which will contain reject concentrate from plant site reverse osmosis. The SDEIS should also reveal the level of contamination that this highly toxic "basin" would contain, long after the mine shuts down.	WR180

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Sue Carver (15750)		
13166	The SDEIS must be redone to calculate whether PolyMet's seepage would violate water quality standards using the closest location where groundwater seeps would reach wetlands. Both the mine site and tailings site have high pollution levels in surficial groundwater seeps and have wetlands far closer to pollution sources than the "evaluation locations" used in the SDEIS.	WET12
13168	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards. Minnesota should not be an experiment for untested technologies.	WR023, WR060, WR181, WR182, WR195
13169	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN13
13170	The Poly Met SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189
13894	I just don't see how it can possibly benefit us. The ore is going to be taken out and given to China. The companies that -- are owned by foreign nationals, who will benefit from the money earned.	SO06
13895	And a few Minnesotans in the northern part of the state will have jobs, but the jobs will be short-term.	SO02
13896	I just can't see any benefit for us, except the long-term pollution that is going to happen that we are going to have to clean up and use our tax dollars for. And the loss of the pristine environment that is up there in the northeast section of our state	SO01
<b>Sender Name (Submission ID)</b> Sue Denio (11550)		
2512	We should require a \$600 million performance bond before they begin work.	FIN05, FIN08
2512	We should require a \$600 million performance bond before they begin work.	VEG04, VEG06
2513	With climate change, wastewater and stormwater collection needs to be designed for extremes.	WR180
2513	With climate change, wastewater and stormwater collection needs to be designed for extremes.	WR180
2514	The EIS must include criteria for cumulative effects of future mining operations in the watershed.	WET18
2514	The EIS must include criteria for cumulative effects of future mining operations in the watershed.	WET18
2515	The EIS should have clear, ironclad restrictions for company transfers after the permit is granted, insuring the safety measures are maintained for the 200-500 years!	FIN01
2515	The EIS should have clear, ironclad restrictions for company transfers after the permit is granted, insuring the safety measures are maintained for the 200-500 years!	FIN01
<b>Sender Name (Submission ID)</b> Sue Evert (42036)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Sue Evert (42036)		
2070	Although I understand people needing jobs in northern Minnesota, ... the risks of contamination of beautiful areas and much needed wetlands seems too great to allow this proposal to go through.	SO01
2071	Are the standards very high to ensure no pollution of this area?	PER06
<b>Sender Name (Submission ID)</b> Sue Goodin (32510)		
12035	Please do not let greed destroy one of the loveliest parts of this state. Norendanger its wildlife. Folks come here to remember or experience how beautiful the USA once was.	SO02
<b>Sender Name (Submission ID)</b> Sue Halligan (16941)		
11023	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Sue Hatcher (11559)		
3234	Polymet has invested their time and money to meet and exceed the fears of clean water pollution. I am confident that Polymet has done everything that has been asked to secure a bright future for our young and protect the natural resources Northern Minnesota enjoys.	PER34
3234	Polymet has invested their time and money to meet and exceed the fears of clean water pollution. I am confident that Polymet has done everything that has been asked to secure a bright future for our young and protect the natural resources Northern Minnesota enjoys.	PER34
<b>Sender Name (Submission ID)</b> Sue Ramthun (14631)		
165	The major downside of sulfide mining is the water pollution risk (acid and increased mercury emissions)...[to] drinking water and fishing waters	AQ05, AQ08, WR113, WR142
166	The SDEIS acknowledges that water from the Polymet operation will need to be treated for at least 500 years. What if there are leaks?	WR129
1697	The risks that come with sulfide mining far outweigh any economical benefits proposed by Polymet.	SO01
1700	No amount of money can replace or "fix" our clean water supply and damaged wetlands.	FIN05, FIN11
<b>Sender Name (Submission ID)</b> Sue Sojourner (11361)		
262	Proposed mines should keep Minnesota's waters clean and safe. Plans should put safeguards in place to avoid things going wrong. The plan should leave the site clean, maintenance-free, and should protect Minnesota taxpayers.	FIN08, FIN10, WR130
1639	I am—and we all should be—appalled and leery of the five centuries of hazardous water treatment violations that will affect us.	PD01
<b>Sender Name (Submission ID)</b> suehawkeleven@yahoo.com (43209)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> suehawkeleven@yahoo.com (43209)		
17089	Poly Met Destruction of all North Americas Aquafors. Water sold to Canada and China. A few jobs for miners. Who's gonna pay for all our healthcare? What we gonna drink? What bout foliage? Animals? Rice? Air?	SO01
<b>Sender Name (Submission ID)</b> superspamke (44593)		
11832	The company might promise full resposibility for the mess it creates but it is not certain. If they can't clean up the mess like a lot of mining comapnies multiple generations of Minnesotans would be left to clean the problem.	FIN01
<b>Sender Name (Submission ID)</b> Susan Abrahamsen (54777)		
19480	It is impossible to guarantee acceptable water quality will be maintained during the mining and also for the next 200 to 500 years. The SDEIS underestimates the base flow at the mine site and doesn't even monitor the amount of mercury that enters the Partridge and Embarrass Rivers and ultimately LakeSuperior.	WR165
19482	I am distressed by the amount of upland forest, swamps and bogs that will be destroyed from this mine and also future mines in NE Minnesota.	WET24
19483	The forest needs to be intact enough to enable wildlife to travel to food sources and appropriate winter and summer habitat.	WI02
19484	I value NE Minnesota for its natural beauty, clean water and abundant wildlife. To me this is priceless. No amount of promised jobs is worthdegrading it.	SO01
19486	generations of residents will end up paying for this financially and also with their health.	HU03
19487	The profits from this mine will leave the state of Minnesota and go to the company headquarters in Switzerland, causing the taxpayers to lose out again.	SO05
19488	I believe in recycling and using technology that doesn't leave negative impacts on the environment.	NEPA06
<b>Sender Name (Submission ID)</b> Susan Agrimson (45190)		
9000	I'm totally confident the company will protect the environment. there are plenty of safeguards in place. plus the new jobs will be a great benefit to northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Susan and Herb Lasch (47542)		
12220	Has the SDEIS fully considered [and compared] the negative environmental impact in other geographic areas that have been subjected to this type of mining?	PD26
12222	[Has the SDEIS fully considered] the track record of PolyMet Mining Corporation in previous mining operations?	NEPA15
12229	Hast the SDEIS fully considered the unknown capability of future generations of oversight to monitor water quality in the 500+ years to come.	WR130
<b>Sender Name (Submission ID)</b> Susan anderson (42891)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Susan anderson (42891)		
9163	I do not trust [PolyMet mines and Glencore Xstrata] and it's claims to hire many union workers from the area and to reliably clean up resultant environmental damage.	SO02
9164	The acid mine drainage and resulting contamination of over 900 acres of wetlands and the potential harm to another 7,300 acres; not to mention the St Louis River and Lake Superior.	WET24, WR111, WR115
<b>Sender Name (Submission ID)</b> Susan Armington (57202)		
17094	Where will the money come from to ensure the waste water treatment plants will continue to operate for 200 at the mine site and 500 years at the plant site? How can we ensure the PolyMet will meet its share of these costs, and not for instance, default or go bankrupt or whatever, before it pays its share?	FIN01
<b>Sender Name (Submission ID)</b> Susan C Flesvig (54479)		
17476	[Reference Table 4.2.2-2 on page 4.29 of SDEIS] The commentary states that the mercury contamination content in fish tissue sample from these waters is above current state maximum levels. (...) I believe much more analysis needs to be conducted regarding this assumption, especially given the very long term that significant mercury and other contaminants will be released into these and other waters within the affected watersheds.	MERC02, WR158
<b>Sender Name (Submission ID)</b> Susan D Blom (57940)		
19848	The long term consequences to wildlife and public health are really not known, despite the research done so far.	GEN03
<b>Sender Name (Submission ID)</b> Susan D. Lannin (35133)		
13040	Approving PolyMet's proposal would give an unwise signal for more sulfide mining near Lake Superior, a vast freshwater resource unique among the Great Lakes, and endanger millions of acres of wildlands, including 1,000 pristine lakes and streams, and threaten the 1,500 miles of canoe routes, now a major recreational draw within the Boundary Waters Canoe Area Wilderness.	LU06
13045	Destruction of fish and wildlife habitat from polluted lakes and rivers, contaminated drinking water, immense cleanup costs and hundred-year recovery times make sulfide mining too dangerous for this region.	WI02, WR114, WR115
<b>Sender Name (Submission ID)</b> Susan Darley-Hill (48784)		
13352	given the prospect of an increasingly-shrinking supply of clean, fresh water within the next 50 years. Water is a resource far, far more precious than any metal - now - and especially in the future when nothing will be more precious or valuable to our descendants.	WR195
14608	Water is a resource far, far more precious than any metal - now - and especially in the future when nothing will be more precious or valuable to our descendants.	SO01
14609	It is a fact that, time after time, in every place where sulfide-rich rocks have been exposed through ore mining, the waters have been impaired.	WR023
14610	the burning of fossil fuels necessary to power the extraction and then maintain the system constructed to handle the acid drainage will release a staggering amount of carbon dioxide, particulates and mercury- all detrimental to the health of virtually every living thing.	AIR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Susan Darley-Hill (48784)		
16781	This project's potential impacts on Minnesota's natural resources and public health include direct damage through disruption of habitat of threatened species such as lynx and moose, destruction of wetlands, and impairment of water quality.	WI01, WI02
<b>Sender Name (Submission ID)</b> Susan Dunne (36036)		
11296	The Boundary Waters canoe experience must be protected. When you have the opportunity to bring city people up there, those that have never left the city cannot believe their eyes. The fishermen on Lake Superior and those who operate lakeside resorts would agree - allowing mining would negatively impact their lives and livelihoods. The purity of our lakes is a tremendous asset. Please do risk our drinking water and so much more.	SO02
<b>Sender Name (Submission ID)</b> Susan Frame (10758)		
12257	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Susan Hawthorne (43126)		
10305	the plan does not adequately consider catastrophic possibilities—infrastructure failures, loss of funding for containment due to (inevitable) government change, changes to waterflow subsequent to usage and global warming, etc., etc	PD22
<b>Sender Name (Submission ID)</b> Susan Hoppe (57711)		
19365	I have patrons who would like to review the NorthMet SDEIS. Can you tell me how we can get a hardcopy for our library?	RFI01
<b>Sender Name (Submission ID)</b> Susan Jane (43093)		
10070	Poly-Met's open-pit copper-sulfide mining plan does not include any analysis of potential risks to on-site mine workers from exposure to asbestos-like amphibole fibers, which have been linked to the fatal lung cancer mesothelioma, that are present at the site.	HU05
10072	the plan does not include a Health Risk Assessment of the effects of mercury, manganese, lead, arsenic and other pollutants on people who live downstream from the site, such as the town of Hoyt Lakes, downstream from the proposed site's waste piles.	HU01
10073	The sulfate discharge and deleterious impacts to wetlands of the proposed mining may result in an increase in levels of mercury to fish and contamination of drinking water ...that will jeopardize the health, particularly, of bottle-fed babies, children and the elderly.	AQ05
14796	Over the past twenty years, we have explored much of this special wilderness area [the BWCAW] in small, lightweight solo canoes, relishing its extraordinary beauty... weighed against the extreme environmental risks that inevitably accompany the Poly-Met mining proposal, the hoped-for benefits of sulfide mining seem hopelessly short-sighted to me.	WILD02
14797	From my understanding of the proposed mining processes, water quality degradation is almost unavoidable, and the company's assurances to remedy any and all resulting water pollution are simply unfeasible. ... adequate safeguards for protection of northern Minnesota natural resources is impossible to guarantee and the potential for environmental damage and its cost to the area is too great.	WR037, WR128, WR195
14798	Sulfide mining appears to be especially unsafe in a water-rich area such as our State. ...there appears to be a high probability of eventual pollution of the groundwater, which would require literally hundreds of years of treatment	WR115

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Susan Jane (43093)		
14799	[PolyMet] has no great commitment to the proposed mine region. As we have seen in many recent environmental disasters, such as in West Virginia, the responsible corporate parties typically declare bankruptcy or find another “escape route,” leaving local communities to contend with the devastation.	FIN01
14800	the idea that the proposed mining operation will provide a significant boost to the northern Minnesota economy is not a sure bet. There is no guarantee that all jobs will be filled by local workers – and the majority of profits from this enterprise will certainly benefit distant shareholders.	SO06
<b>Sender Name (Submission ID)</b> Susan Leaf (9767)		
1567	Since there is no copper/nickel mine with sulfide ore that has not polluted the water around it, we can assume this will happen to Minnesota, too.	WR123
1568	It is nearly beyond belief that rational people are even weighing these facts against one another: a mine that will offer a few hundred people jobs for less than one work-life-- a 20 year old man beginning at the proposed mine would be out of work at age 40-- versus the pollution (worst case) or 500 year monitoring (best case) of a cherished wilderness area and the world's largest freshwater lake?	SO01
<b>Sender Name (Submission ID)</b> Susan Lick (40913)		
13951	Polymet may be able to mine as safely and environmental sound as they propose but to allow a mining operation of this sort in the ecologically sensitive region proposed without a full fledged program to glean all used precious metals is mindless.	PD01
13952	Before DNR issues permits to mine Cu, Pd, Ni, Pt at the Polymet site all measures to provide reclamation and recycling to outdated electronic gadgets should be instituted... I am not proposing that Polymet be forced to advocate this endeavor, this must be done by state government. Currently there is a half hearted program in operation to reclaim these metals but it is by no means adequate to retrieve all metals used to manufacture phones, computers, cars, etc.	NEPA06
<b>Sender Name (Submission ID)</b> Susan Maas (9620)		
1342	Pollution seeping from mine pits into the Partridge River surficial waters “would continue in perpetuity.	WR035
1343	As a Minnesotan, a wilderness lover and a taxpayer -- history suggests we taxpayers will be left holding the bag for cleanup if/when the company folds -- ...	FIN08, FIN10
<b>Sender Name (Submission ID)</b> Susan McCabe (40259)		
9650	I am most concerned with the mercury contaminants which will be going into the groundwater and Lake Superior...Kids in this area already have a higher level of mercury in their bodies.	MERC03
14137	It is not right for a company to be allowed to pollute our environment and harm our infants and children.	HU03
14138	Please reject the PolyMet SDEIS and deny permits - like a permit to mine or a Section 404 wetlands permit -- that would allow this open-pit sulfide mine to harm Minnesota’s fresh water.	WR195
<b>Sender Name (Submission ID)</b> Susan Miner (4664)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Susan Miner (4664)	
1871	realize the cost in cleaning up the leftover disaster when you are done destroying the pristine area ... The people of Minnesota do not need to add another clean-up bill to our already high taxes.	FIN08
<b>Sender Name (Submission ID)</b>	Susan Murray (14645)	
167	Because this region contains an underground aquifer, NO AMOUNT of money will ensure an adequate clean-up/disaster leak contingency plan.	FIN05, FIN11, WR128
<b>Sender Name (Submission ID)</b>	Susan Narayan (39974)	
6234	I urge you to reject this risky proposal to mine sulfide ore in the headwaters of the St. Louis River.	WR195
<b>Sender Name (Submission ID)</b>	Susan Nordin (18365)	
2544	There's been a lot of speaking about pollution and pollution runoff, heavy metals, and mercury. And this impact and the impact on human health. And I have a deep concern about that.	HU03
2545	One thing that is noted in the plan is that already there are currently 16 main thoroughfares for large mammals to traverse at this point remaining across the Iron Range area. This project would do away with two of those permanently	WI03
2546	This is a high-quality wetland that we're talking about. This is pre-settlement wetland that cannot be replaced. It's 1,000 acres. We're talking about trading that for -- trading land that is ours under the Forest Service for mine pits and low-quality wetlands, which is not going to be supportive of our health.	WET14
5425	We respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal.	HU01
5426	After reviewing the PolyMet SDEIS, we believe that the information on mercury releases and the potential for mercury bioaccumulation is insufficient. The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of mercury and other air pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	AIR05
5428	The PolyMet SDEIS also provides an insufficient analysis of the human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and carcinogenic effects of air emissions of diesel, asbestos-like fibers, nickel and other particulates, and of arsenic releases to water.	HU01
5431	The PolyMet SDEIS...fails to assess impacts of tailings groundwater seepage on nearby residential populations.	HU01, WR041
5443	[The requested supplemental] Health Impacts Assessment should include at least the following: Description of the known human health impacts of all pollutants in PolyMet's air emissions and water discharges based on reliable toxicity and epidemiology data.	HU01
5444	[The requested supplemental Health Impacts Assessment should include:] Assessment of health risks resulting from fossil fuel combustion, including impacts of burning coal to meet mine energy demands.	HU01
5445	[The requested supplemental Health Impacts Assessment should include:] Assessment of potential health impacts on residential wells from tailings seepage and cumulative health risks from contaminants to other drinking water sources.	HU01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Susan Nordin (18365)	
5446	[The requested supplemental Health Impacts Assessment should include:] Health risk assessment for on-site workers at both the PolyMet mine and plant, reflecting both cancer and non-cancer risks.	HU04
5447	[The requested supplemental Health Impacts Assessment should include:] Assessment of cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River.	MERC03, MERC10
5448	[The requested supplemental Health Impacts Assessment should include:] Assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis and an appropriate “lifetime” exposure.	HU05
5449	[The requested supplemental Health Impacts Assessment should include:] Assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.	HU01
5514	We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Risk Assessment be prepared under the guidance of the Minnesota Department of Health.	HU01
5851	The PolyMet SDEIS fails to analyze health risks to workers who would work on -site at the PolyMet mine or plant...	HU04
13054	There are significant concerns relating to human health that need to be thoroughly examined before such a project is allowed to proceed. These have to do with toxic pollutants related to sulfide mining, which are known to affect human health such as methyl- mercury, lead, arsenic, manganese, air pollution and asbestos.	AIR10
13063	We ...expressed concern about the lack of information relating to human health impacts within the PolyMet proposed project's SDEIS... Specific information about toxic pollutants such as mercury, asbestos and air pollution are not fully and clearly disclosed within the SDEIS... The data relating to the amount of mercury and methyl-mercury appears incomplete.	HU01
13073	...the proposed Poly Met copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water... [The SDEIS] fails to adequately assess important risks to human health from pollutants that would be released from this project. The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the SDEIS is particularly troubling.	HU03
13079	The information on mercury releases and the potential for mercury bioaccumulation is insufficient. The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of mercury and other air pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	AIR05, WR017, WR018
13083	The PolyMet SDEIS ...provides an insufficient analysis of the human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and the carcinogenic effects of air emissions of diesel, asbestos-like fibers, nickel and other particulates, and of arsenic releases to water.	HU01
13087	The PolyMet SDEIS does not discuss impacts of exposures to vulnerable populations, such as infants, children, the elderly and persons who rely for subsistence on fish, wild rice, or game species where pollutants may bioaccumulate.	HU01
13092	The SDEIS should include a Health Impacts Assessment... including: a description of the known human health impacts of all pollutants in PolyMet's air emissions and water discharges based on reliable toxicity and epidemiology data.	HU01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Susan Nordin (18365)		
13093	The SDEIS should include a Health Impacts Assessment...including: an assessment of health risks resulting from fossil fuel combustion, including impacts of burning coal to meet mine energy demands.	HU01
13097	The SDEIS should include a Health Impacts Assessment...including: an assessment of potential health impacts on residential wells from tailings seepage and cumulative health risks from contaminants to other drinking water sources.	HU01
13100	The SDEIS should include a Health Impacts Assessment... including: health risk assessment for on-site workers at the Poly Met mine and plant, reflecting both cancer and non-cancer risks.	HU04
13104	The SDEIS should include a Health Impacts Assessment... including: assessment of cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River.	HU01, MERC03, MERC10
13106	The SDEIS should include a Health Impacts Assessment... including: assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis and an appropriate "lifetime" exposure.	HU01
17514	Without...a health risk assessment, communities affected by the PolyMet proposed project are denied the opportunity to make a fully informed decision about this project. We believe the lack of such a health assessment renders the current SDEIS incomplete and insufficient.	HU01
17515	We respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks in the proposal. We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Risk Assessment be prepared under the guidance of the Minnesota Department of Health.	HU01
17516	Mercury contamination of fish and impacts on neurotoxicity in the developing fetus as well as infants, children and adults is a significant public health concern in Minnesota... We are aware that many of the bodies of water downstreams of the proposed PolyMet mine and plant are legally impaired due to mercury in fish tissue.	MERC03
17517	Other mine facilities that release mercury and/or sulfates increase the cumulative risk of methylmercury bioaccumulation. The lower reaches of the St. Louis River, including the St. Louis River estuary, are known to contain particularly high levels of mercury.	MERC10
17518	The PolyMet SDEIS fails to analyze health risks to workers who would work on-site...and fails to assess impacts of tailings groundwater seepage on nearby residential populations.	WR041
17519	we...request that the PolyMet SDEIS be revised to provide more complete information on mercury and sulfate air pollution emission and deposition, water pollution seepage from various sources, and the potential conversion to and bioaccumulation of methylmercury resulting from releases to the environment and hydrological changes from the proposed PolyMet project.	AIR02, MERC08, WR033, WR060
17520	We further request that the PolyMet SDEIS be determined inadequate pending supplementation to include a Health Impact Assessment, under the direction of the Minnesota Health Department.	HU01
17521	The SDEIS should include a Health Impacts Assessment... including: ...assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.	HU01
<b>Sender Name (Submission ID)</b> Susan Rom Zuriff (20045)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Susan Rom Zuriff (20045)		
1696	The effect on long-range state finances is imperiled if that happens. And the number of jobs may be many fewer than anticipated with the expansion of technology, especially robotic.	SO06
<b>Sender Name (Submission ID)</b> Susan Scherer (16178)		
9750	It seems likely that contamination will occur and that cleanup, if even possible, will take a very long time. That is not what I consider a stance for an agency that is supposed to protect our natural resources, especially water.	WR070, WR195
11465	The pursuit of money seems to drive many decisions, but it cannot be our number one consideration, if we want to continue living on this planet.	SO01
18591	I worry about wetland destruction, contamination of the water entering the watersheds to Lake Superior	WR111, WR112
18595	Harm to the ecology of the Superior National Forest is a violation of Indian treaty rights.	SO02
<b>Sender Name (Submission ID)</b> Susan Schneck (54134)		
16028	There are other ways to grow our economy safely with respect to the environment.	SO02
<b>Sender Name (Submission ID)</b> Susan Schurke (18080)		
3196	I'm very concerned about the financial assurance in the SDEIS. Who can ever figure out what the cost of the cleanup will be for 500 years. Who can ever figure out what the cost of the cleanup will be for 500 years. Who will pay this? Who -- what is the amount they could possibly -- that can be put forward to replace something that can never be replaced; our clean water that we desperately need?	FIN01, FIN05
3197	The proposed sulfide mine and tailings dump would pollute streams, wetlands and drinking waters for hundreds if not thousands of years.	WR115
3198	I request that common-sense alternatives like putting liners under the permanent waste-rock pile and the tailings piles be analyzed before the EIS can be finalized.	ALT10
3199	The vast majority of wetlands mitigation is outside the Lake Superior Basin and there is no plan to replace most of the indirectly-affected wetlands.	WET01, WET03
3200	I am concerned that cumulative impacts of the PolyMet Project, and other existing and expanding mines, would impair wild rice, fish and aquatic ecosystems and violate the treaty rights of Indian tribes to hunt, fish and gather in the Superior National Forest lands ceded to the United States.	CU11
3201	I'm concerned that PolyMet's water and air pollution from mine pit, waste rock and tailing piles, and PolyMet's excavation and changing hydrology and wetlands would increase mercury loading to wetlands and streams and increase mercury bioaccumulation in fish putting human health at risk.	MERC02
3202	I'm concerned that PolyMet's discharge would increase carcinogenic arsenic in Hoyt Lake's drinking water and release arsenic, lead and manganese, chemicals that impair brain function, into the ground water.	HU05
3203	I am concerned that PolyMet's water pollution from the permanent mine site waste-rock pile would need treatment for at least 200 years and pollution from the tailings piles would require treatment for at least 500 years.	WR035

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Susan Schurke (18080)		
13313	I believe that issues that haven't been analyzed at all in the SDEIS, like impacts on workers' health, be studied before the EIS is finalized.	HU04
<b>Sender Name (Submission ID)</b> Susan Solterman Audette (43313)		
15754	Northern Minnesota needs economic development that does not risk polluting surrounding surface waters with a mix of acid and heavy meta	SO01
15755	PolyMet, as proposed in the Supplemental Draft Environmental Impact Statement, creates a new ongoing water pollution source in the headwaters of the St. Louis River, the largest American tributary to Lake Superior, which contains 10 percent of the world's fresh water. PolyMet's own data show it is expected to generate water pollution for more than 500 years.	PD03
15756	Treating the polluted water requires a complex and untested mechanical system of pumps, pipelines, and filters, which would need to operate indefinitely. The plan does not consider the possibility of mechanical or human failure. PolyMet has no contingency plan for predictable mechanical problems such as pipeline failures, extreme weather or human error. These considerations remain unaddressed in the SDEIS and should not, ultimately, be overlooked by our State's designated environmental managers and stewards.	GT10
<b>Sender Name (Submission ID)</b> Susan Soule (38413)		
13644	The idea that we would risk centuries of pollution and the staggering costs of cleanup (provided that is truly possible) to one of our most basic and essential resources for a few hundred jobs lasting two or three decades is beyond belief.	SO01
13645	WATER is a precious resource. Besides being the foundation for much of Minnesota's recreational industry, it is essential to the life of our entire ecosystem from the lowliest life forms to human beings.	WR111, WR195
13646	The idea that we would allow Polymet and its affiliates to do this, with their horrendous track record, is equally terrible.	FIN01
<b>Sender Name (Submission ID)</b> Susan Stanich (11627)		
2311	We will be left with thousands of acres of ruined land and water, ruined for 500 years into the future. Glencore/PolyMet says it will put into place its "reverse osmosis" plant in 40 years, to clean things up. Even if such a thing would work, and the SDEIS doesn't appear it would, the company's history indicates that its more likely to drop out of the picture before then, leaving us with ugliness, illness, poisonous sludge and no money or ability to deal with it.	SO02, WR037, WR128, WR143, WR144
2311	We will be left with thousands of acres of ruined land and water, ruined for 500 years into the future. Glencore/PolyMet says it will put into place its "reverse osmosis" plant in 40 years, to clean things up. Even if such a thing would work, and the SDEIS doesn't appear it would, the company's history indicates that its more likely to drop out of the picture before then, leaving us with ugliness, illness, poisonous sludge and no money or ability to deal with it.	WI05, WI02
3314	How will Gencore/Polymet keep its intensely toxic sludge safely behind its proposed dam during increased rains of global climate change? What is it plan for putting aside money now to pay for cleanup in 50 to 200 years?	WET24, WR196
3314	How will Gencore/Polymet keep its intensely toxic sludge safely behind its proposed dam during increased rains of global climate change? What is it plan for putting aside money now to pay for cleanup in 50 to 200 years?	FIN01, FIN05, WR066, WR130

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Susan Stanich (11627)		
7406	A DNR warning sign that the mercury-loaded fish in the St Louis are unsafe for human consumption is visible from our house. ...So we fish elsewhere, and we gather wild rice in lakes whose productivity clearly will decline with the sulfates and mercury leaking from this dreadful project.	WI02, VEG02, WET05
7406	A DNR warning sign that the mercury-loaded fish in the St Louis are unsafe for human consumption is visible from our house. ...So we fish elsewhere, and we gather wild rice in lakes whose productivity clearly will decline with the sulfates and mercury leaking from this dreadful project.	AQ05, WR156, WR158
7409	Unless Glencore/Polymet can prove that they can prevent [devastating environmental damage], the EPA should deny the project and the Army Corps should not give them a section 404 wetlands-destruction permit.	COE03
7409	Unless Glencore/Polymet can prove that they can prevent [devastating environmental damage], the EPA should deny the project and the Army Corps should not give them a section 404 wetlands-destruction permit.	COE03
<b>Sender Name (Submission ID)</b> Susan Williams (54846)		
19007	Minnesota is the "land of 10,000 lakes"...there is water everywhere and it is all connected...PolyMet try to convince us that they will be able to treat the contaminated water they will be creating for 500 years. Too risky!	WR195
19008	Companies go bankrupt all the time...What happens then? For the next 500 or 1000 years? Who pays to clean up the mess they've made? We do!	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Susie Kleusch Parkhurst (40104)		
6474	I do trust and rely on entities such as the FDA, EPA and MN DNR to have done their due diligence to assure that they have done all they can to protect and preserve all that they are charged with protecting. I feel comfortable with the levels of guidelines that are currently enforced and that will be enforced in the future to protect our environment and the environment of the world.	PER34
<b>Sender Name (Submission ID)</b> Susu Jeffrey (42474)		
7063	More money in clean up than extraction--Foreign-owned, therefore profits go away	SO02
10759	20 YEARS of MINING...20 GENERATIONS of CLEAN UP...Reject the PolyMet sulfide mine plan in Northern Minnesota's water-rich territory.	WR115, WR195
12548	We think the PolyMet mine is a dangerous idea because the jobs really aren't there. They are only there for 20 years, and then 500 years of cleanup.	SO01
<b>Sender Name (Submission ID)</b> Suzanne Bowman (4038)		
846	I am very anxious to hire new employee's as the result of Polymet opening. Not only will the plant hire, but the vendors who supply the mine will hire, and we will see a much needed increase in hotel stays therefore I will be able to hire.	SO10
847	I love the idea that the plant will be recycled from the old LTV plant!	PD28
13595	I believe that we need the precious metals very much and we cannot have it dependent on another country, especially China and Japan because they are looking to go to war between them.	SO10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Suzanne Candell (34383)	
13247	Although the project offers jobs in the immediate term, they are transitory. The long-term damage that such a project will inflict environmentally and economically on the area means that the legacy to future generations may be a loss of tourist income, illness and spoilage of the natural beauty of the area.	SO01
<b>Sender Name (Submission ID)</b>	Suzanne Michael (30499)	
13992	We here in Mi. are proud of our Great lakes and want to keep them perfect and you're coming in and ruining it al isn't in any of plans.	WR115
<b>Sender Name (Submission ID)</b>	Suzanne Sette (16169)	
9713	We saw what can happen in [West Virginia] with the coal industry polluting water for 350,000 people. And then declaring bankruptcy!! We don't need Polymet in this state with the opportunity to do the same!	FIN01
<b>Sender Name (Submission ID)</b>	Suzanne Shuckhart (50020)	
12999	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b>	Suzanne Steinhagen (54757)	
19188	The people for sulphide mining are endeavoring to solve the problem of employment by formulating a more complicated problem of toxic water pollution, lasting two to five hundred years.	WR115
<b>Sender Name (Submission ID)</b>	Sven Hoaglund (44459)	
10625	I think that its great that for 20 years there might be a few more jobs in a pretty cash strapped region of our state, but in all reality it is not sustainable...and after the 20 years of mining are up the residents of northern MN will be in the same place they were before this.	SO01
10627	It' also absurd that we might be cleaning up waste from these 20 years of mining for an eternity...or 500 years which is close enough.	PD03
<b>Sender Name (Submission ID)</b>	T & S Wright (38976)	
18244	PolyMet is vital to our region's longevity and the future is depending on Polymet to help breathe life back into the local economy that has NOT been here since the late 1970's	SO10
<b>Sender Name (Submission ID)</b>	T Olsen (44213)	
11951	The fact that we need to discuss and learn about how to clean up this toxic process and consider clean-up efforts for at least the next 100 years, likely more if it's possible at all, should be reason enough to stop this conversation here and now!	PD01
14885	Can anyone provide substantive proof that no harm will come to the areas proposed in the mining? I have not heard any such evidence. What I have heard is evidence that this type of mining allowed in other states has resulted in significant damage and pollution. ...This land and our environment belongs to everyone, not just those who want to profit from it regardless of impact.	SO01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) T Wilson (36936)</b>		
15907	...I feel the offshore companies should not be allow to mine on US soil. They too easily escape the responsibility for proper clean up after the [environmental damage] has occurred.	FIN04
15908	Please show me a study which displays the demand for copper and the need to destroy our ecology for this myopic enterprise.	NEPA03
15909	Jobs? the few actual jobs for the locals is far outweighed by the damage to the ecology for what 20 jobs?	SO01
<b>Sender Name (Submission ID) T. Chandler (44182)</b>		
12727	Many costs associated with this project have not been addressed: costs of health effects due to increased pollution in water and air, depressed real estate values (which has already occurred in the area), costs of future perpetual cleanup which will be born by taxpayers (this site will end up as a Superfund site costing billions of dollars), costs of lost influx of revenue (new residents/tax base, tourists), costs of road and other public infrastructure maintenance, costs of abandoned buildings/homes when the mining company stops operations, and all other costs that will be born by taxpayers. These and all other external costs must be calculated and defined in the SDEIS.	SO01
12729	This mine will result in hundreds of acres of permanent habitat destruction. Important natural resources, from clean ground water to animals such as moose and lynx, will be permanently affected or destroyed.	WI01, WI02, WR111, WR112
15367	No company or government action has ever prevented water contamination from sulfide mines from occurring. No company has ever been able to completely clean up the contamination once it occurs nor is it possible for any company to continue with cleanup for the hundreds of years remediation would take.	PD26, WR023
15368	The SDEIS does not address how [water] contamination will be prevented, nor does it adequately address how clean up of the certain contamination will be handled. The SDEIS provides no details on the impacts to water quality, wildlife, or human health if the water treatment system ceases operations at some time during the 500+ years during which the polluted water is being discharged.	PD03
15369	The SDEIS does not adequately address the prevention of air contamination from dust, particulates, emissions from machinery, and emissions from power generating plants.	AIR11
15370	The SDEIS does not address how on-site or off-site spills or leaks of fluids, ore and waste materials and other accidents will be handled to prevent contamination.	HAZ01
15373	It is clear that sensitive receptors, including wildlife, residents, and tourists will be affected by the blasting and will permanently avoid the area, not just avoid the area "at times."	N05
15374	The SDEIS fails to provide details of how the monitoring and maintenance of pollution prevention measures would be handled for the hundreds of years needed to Minnesota Rules 6132.3200 requires that the site must be maintenance-free at closure, but the PolyMet mining plan calls for at least 500 years of active water treatment.	FIN11
15376	The stockpile covers and liners are not adequate to prevent migration of contaminants to air, surface water, and groundwater. The SDEIS fails to address how the pollution prevention measures would be maintained over the hundreds of years necessary to prevent contamination.	WR127, WR138
15379	Mining companies are notorious for abandoning projects once the ore is extracted, leaving cleanup to the taxpayers. ... If this mining operation is allowed, it will end up as a Superfund site that will take decades just to reach the remediation stage and will cost the taxpayers of this country billions of dollars.	FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> T. Chandler (44182)		
15380	The SDEIS fails to accurately portray the hydrogeology of the area.	WR071
15381	It is clear that PolyMet is only able to pursue this project because of the environmental justice associations. This project would never have been proposed if the affected area was more highly populated and the people more affluent. The only way a project like this can obtain approval is if the affected persons are convinced that the jobs benefit outweighs the environmental devastation. It is intolerable to think that the involved state agencies will allow the people of this area to be so negatively affected by this project.	SO01
15382	This SDEIS has failed to provide adequate and accurate data to show that PolyMet will operate the proposed mine without polluting the environment, affecting public health and safety, and negatively affecting the socioeconomic wellbeing of the area. I request that involved agencies reject this SDEIS.	PD01
<b>Sender Name (Submission ID)</b> Tam McGehee (15894)		
11290	The SDEIS must be redone to disclose, with objective data, how much water would go where, what pollution levels would be at each pond, sump, waste pile, waste facility or seep, and what actual field experience shows that its plan would meet water quality standards.	WR023, WR060, WR181, WR182, WR195
<b>Sender Name (Submission ID)</b> Tami Limberg (45247)		
9090	This type of mining has never been done without pollution and our land cannot take the hit. Yes it would bring in millions of dollars to our state in revenue, but at the expense of one of the last remaining wild places.	SO02
<b>Sender Name (Submission ID)</b> Tanner Bailey (43742)		
11791	I believe no mining should be allowed in our National Forests. Please keep the forests in their natural state.	WILD02
<b>Sender Name (Submission ID)</b> Tanner Bong (18070)		
13261	And I support the whole mining situation because it will help with the outcome of jobs and people.	SO10
<b>Sender Name (Submission ID)</b> Tanner Lucas (20081)		
15742	The PolyMet NorthMet SDEIS contains inadequate analysis of the cumulative effects of habitat fragmentation and loss on the Canada Lynx ( <i>Lynx canadensis</i> ).	WI02
15743	The Canada Lynx is a threatened species listed under the federal Endangered Species Act. The NorthMet project area is in designated critical habitat for the lynx, and the SDEIS notes that the proposed action would destroy over 1,400 acres of critical lynx habitat at the mine site. The designation of this area as critical habitat is supposed to trigger analysis of whether the proposed action, and the cumulative effects of other reasonably foreseeable actions place the Canada Lynx in jeopardy.	WI01, WI02
15744	the incidental death of Canada Lynx due to increased vehicle traffic between the mine and plant site is noted, but inadequate attention is paid to mitigation measures that could limit incidental deaths of lynx. Despite this, the SDEIS contains contradictory statements about the use of roads as travel corridors by lynx.	WI01, WI03

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tanner Lucas (20081)		
15799	The cumulative effects analysis section of the NorthMet SDEIS fails to adequately account for a number of reasonably foreseeable projects. Specifically, the Twin Metals and Teck American projects are listed as "speculative" in Section 6.2.2.1.21 and are not analyzed for their cumulative effects. No evidence or rationale for excluding these projects from the cumulative effects analysis is offered.	CU02
15801	In Section 6.2.3.6.4, the Gray Wolf is the only "Special Status Species" for which even limited analysis of cumulative effects is conducted, despite the Canada Lynx's status as a federally threatened species.	WI01
15805	Please... Include the Twin Metals and Teck American projects as reasonably foreseeable projects in the cumulative effects analysis in section 6.2.2, since the disposition of the NorthMet SDEIS and subsequent permitting decisions could make these projects more likely to be built.	CU02
15807	[Please] Include the Canada Lynx as a "Special Status Species" in Section 6.2.3.6.4 and conduct a cumulative effects analysis of the impact on Canada Lynx.	WI01
15809	[Please] Analyze and include mitigations such as tunnels and fencing to limit the possibility of incidental take of Canada Lynx by increased road traffic associated with the NorthMet proposed action.	WI01, WI10
15810	[Please] Remove contradictory language in SDEIS about Canada Lynx utilization of roads as travel corridors. For example, on p. 5-628 the SDEIS states "Lynx utilize snow packed trails and roads as travel corridors," while on p. 5-366 it says "this species does not rely on roads for	WI01, WI03
15815	[Please] Analyze and include mitigation such as accelerated re-vegetation of the mine site after closure to decrease the amount of time the mine site would be inhospitable to Canada Lynx.	WI01, WI02
<b>Sender Name (Submission ID)</b> Tanya Bachmann (54563)		
18966	...I am VERY concerned about PolyMet's proposal and the impact on Minnesota's water, Minnesota's environment, and Minnesota's citizens/guests for years and years to come!(...) Our water will not remain safe, clean or maintenance free!	WR037, WR115
<b>Sender Name (Submission ID)</b> Tanya Beyer (17137)		
1658	Not vinyl, not clay, not metal set in the ground to hold the drainage in storage ponds or divert run-off from towering piles of dug-up rock, wood rubble and dried-out peat will keep the acid waste water from where we don't want it to go.	WR126
1659	Minnesota, girded underneath by sands and the soft stuff making up peat bogs, and abundantly snowed-on many winters, creating vast movements of water, is hugely vulnerable to the transfer and pooling up of chemical toxins.	WR112
1660	What if closures due to major market slowdown happened within the lifetime of Polymet	PD24
1661	what if the few fish left are full of mercury, another pollutant released by sulfide mining--or arsenic, or both?	AQ05
1662	And what about carbon emissions [767,648 metric tons annually] from the heavy equipment and land disturbances normal to mining?	AIR01
2088	Please reject the PolyMet NorthMet SDEIS as inadequate and acknowledge that the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever.	NEPA04, WR195

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tanya Beyer (17137)		
3459	Last night my friend and I went to the hearing in Duluth, a first of three around Minnesota, about the proposal to let a big mining conglomerate, Polymet, leak sulfuric acid and a mess of other toxic overflow into the Lake Superior watershed in order to get at the copper, nickel, platinum and other mineral wealth that underlies this area our hearts draw sustenance from.	WR111
3460	I say mines because Polymet's proposed mine located near the Embarrass and Partridge Rivers, which would wash the pollution into the St. Louis River and thence Lake Superior, is not the only proposed sulfide mine. Twin Metals is a joint venture between a Canadian and a Chilean company that wants to dig another mine barely three miles from the Boundary Waters Canoe Area near Ely, Minnesota.	CU02
3461	No company, whatever formal arrangements it puts on record, will retain squadrons of river guardians or pit watch personnel past its own dissolution, or past all caring once the blue coldwater lakes of legend or the fishing streams are discolored or pretty well devoid of healthy aquatic life.	FIN01
3462	Arguments made by citizens in favor of mining are that we need the copper that the region has, that no other mining region of the world has the robust environmental oversight found among Minnesota agencies and that we have to at least let Polymet give it a first try, ostensibly to see how well they do protecting the rest of our resources. Unfortunately, and most persuasively, there is the loudly proclaimed and very real need for paying jobs in northern Minnesota. The first point is moot; copper mines crowd the southern two thirds of Arizona, and are also found in New Mexico, Utah, Montana and Michigan. As for oversight, in any area of the world, whatever underlies a mine pit is more or less permeable by water, and no matter what is practiced in the westerly copper mining districts, a place like Minnesota, girded underneath by sands and the soft stuff making up peat bogs, and abundantly snowed-on many winters, creating vast movements of water, is hugely vulnerable to the transfer and pooling up of chemical toxins.	PER35
3463	Meantime, during and after the inevitable bust cycle that follows in the northland, as inhabitants in their degrees of hunger and desperation forage fish, hunt and forage from the land, what if the few fish left are full of mercury, another pollutant released by sulfide mining--or arsenic, or both?	AQ05
3470	And what about carbon emissions from the heavy equipment and land disturbances normal to mining? One source, an Anishinaabe native people's on line tract titled Protect Our Manoomin (wild rice,) says sulfide mining will have an annual carbon footprint of 767,648 metric tons annually. Credit for the facts and figures is given to sources including WaterLegacy, Friends of the BWCA, and Lake Superior Mining News.	AIR01
12992	This whole region is underlain by percolating water which will begin to run with soluble metals including mercury, getting into lakes, marshes and rivers, harming wildlife scarce already including the threatened lynx and our declining moose populations.	GEN03
12995	The Polymet scheme is a rich corporate affair that in no way benefits anyone except those who measure well-being in dollars. A hoax is being perpetrated on the job-poor promising them work at the expense of everything else in the region.	SO02
16242	The questions are when, how soon and how much effluent will make its way where-all and how far.	WR064, WR070, WR111, WR177
16249	our kind of people just doesn't agree to leave things well enough alone where financial wealth is at stake. The ones who can will amplify their rationale for going and getting, and they persuade enough of the others that life will be better for them too as a result. This is how one more big patch of Earth full of places with virgin thickets and swamps, rivers and lakes that still keep their historic complement of fishes and frogs, birds and wild fur bearers risks becoming another piece of everywhere else, with tired water and particulate-blown air.	SO01
<b>Sender Name (Submission ID)</b> Tara Skar (54537)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Tara Skar (54537)		
19172	The Boundary Waters and the surrounding National Park/Forests are more than important tourist attractions and recreation areas—they are historically and culturally integral to Minnesota’s identity. Our solution to low employment can’t infringe on future generations’ environmental health.	SO02
<b>Sender Name (Submission ID)</b> Tara Widner (54915)		
19316	Manoomin is a sacred plant to the Ojibwe. The Ojibwe were compelled by a prophesy prior to colonization to migrate from the east coast of North America to the Great Lakes region to live where the 'food grows on the water' and that food was manoomin. Manoomin is the first food to be eaten by Ojibwe babies and lastly served at funeral ceremonies. The manoomin harvest continues to be central to Ojibwe families for its nutrition, economical and spiritual value. Any proposed mine that puts manoomin in jeopardy should not be allowed to go forward.	CR01
19317	The Partridge and Embarrass Rivers are wild rice waters that will be affected by sulfide runoff from the proposed PolyMet mine. All mines in sulfide bearing rock in a non-desert environment have resulted in pollution. Minnesota's unique topography with water tables so near the surface, it facilitates surface and ground water interaction and more potential for pollution.	VEG04, WR156
19318	There are no plans for lining the tailings piles. When it rains or snow melts the tailings piles will leach pollutants into the water. There are no plans in place for floods or other emergencies such as the flooding in Northeastern Minnesota in 2012.	WR127, WR130, WR180
19319	Water is sacred. We cannot allow for water to intentionally be polluted and then treated by a method that has not been proven effective at the volumes PolyMet is proposing.	WR195
19320	By PolyMet's own admission, the water will require 500 years of perpetual treatment- completely unrealistic. All of this for the possibility of a few hundred jobs for a couple decades. It is irresponsible to even consider the Polymet offer. There is no amount of financial stability that can guarantee that kind of financial or moral obligation.	SO01
19321	The land is sacred to the Ojibwe. The mine site and the area around the mine is known to the Ojibwe as Mesabe Widjiu, the Laurentian Divide. The mine will pass through the Thunderbird Trail preventing access for ceremony and gathering of medicine.	CR01, CR05
19322	The Ojibwe continue to hold usufructuary Treaty rights in the area where the mine is being proposed. To allow pollution and the ecological devastation will prevent the Ojibwe from exercising their usufructuary rights. You can't harvest manoomin, hunt, trap or gather on land that has been poisoned.	CR01
19323	there is no statement on the potential public health impact to the general public. This area is known for exceptionally high rates of mesothelioma. It has been noted in studies that there are 'asbestos like fibers' in the rock of the eastern Iron Range. There are no assessments of the chemicals including arsenic that will be released into the city of Hoyt Lake's water supply, Colby Lake. There are no assessments on the health impacts of the increase in energy usage that will be required. There are no public health assessments of any kind.	HU01
19324	The part of Minnesota that is being offered up as an ecological sacrifice is sacred to the Ojibwe and a treasure to all Minnesotans.	GEN01
<b>Sender Name (Submission ID)</b> Ted Donahue (54520)		
18737	Keep the Boundary Waters pristine. I want to continue to spend my vacation dollars there.	WILD02
<b>Sender Name (Submission ID)</b> Ted Heller (47702)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Ted Heller (47702)		
7965	Unless you want to ban copper/nickel products in the state, MN needs to live up to it's responsibility to responsibly mine these minerals. MN can do this better and safer than probably most states/countries in the world.	NEPA05
<b>Sender Name (Submission ID)</b> Ted Wahl (44589)		
11831	As a young youth in Minnesota, building a mine close to the boundary waters that's only providing 50-100 jobs for the economy, is NOT worth the 500 years of clean up.	SO01
<b>Sender Name (Submission ID)</b> Terence H Cooper (42710)		
8598	The permitting of one Cu/Ni mine in this area will imply that additional mines are also permissible. I think the cumulative effects of Cu/Ni mines are so detrimental to the environment that permitting one mine is not acceptable.	PER07
8599	With the mine lasting 20 years I find this concept of processing for water quality 200 and 500 years into the future unacceptable...Polymet would create polluted water requiring expensive treatment for 500 years after they stop mining, and millions of gallons of untreated, polluted water would seep from the site every year into groundwater and nearby rivers according to the SDEIS.	WR115, WR195
8601	The future is uncertain for our climate due to climate change. Experts predict that storms will be more severe in the future. PolyMet's plan fails to plan for contingencies like pipeline breakages and extreme weather events.	PD22
8603	The fact that PolyMet's mine plan doesn't release details about how much of a damage deposit would be needed to protect taxpayers from the cost of 500 years of cleanup and maintenance is not acceptable. ... Minnesotan's will be left holding the bag for the cost of cleanup and maintenance.	FIN01, FIN10, FIN13
<b>Sender Name (Submission ID)</b> Teresa / Aaron Alto (45519)		
11498	The mining of these metal resources threatens another resource: water and clean and healthy watersheds and watershed ecosystems	WR115
15757	And we are talking about a necessary cleanup—according to the company’s own materials—required for too long for human companies or governments to plan for or fund.	FIN01
<b>Sender Name (Submission ID)</b> Terrell Brown (57945)		
19837	There is no way to guarantee that the money will be available in even 100 years or project what the costs may be at that time.	FIN01
<b>Sender Name (Submission ID)</b> Terri Fogarty (52224)		
16220	Protect our natural resources - not their pocketbooks!!!! There is NO price you can put on our natural resources.	SO01
<b>Sender Name (Submission ID)</b> Terry (38473)		
13598	Polymet mining will provide a much needed economic boost for northern Minnesota lasting many years.	SO10
13599	As long as Polymet can prevent permanent damage to our lakes and streams, Polymet should be given the right to mine.	WR190

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID) Terry D Welander (14793)</b>		
185	Where is the accounting of the emissions from the 1500 volcanoes dropping toxins everywhere downwind (which is nearly everywhere on Earth) and on the surface in NE MN in particular?	AIR09
186	Where is the accounting of the emissions from the daylighted natural ore bodies in numerous locations in NE MN?	AIR11
187	Providing nickel production in North America is a national security requirement negating practically all of the environmental concerns.	NEPA05
188	Immediate issuance of the necessary permits by the MPCA to Polymet is urged in the strongest possible terms to make this review lawful and avoid formal criminal court complaint from local governments	PER34
189	Only the MPCA should be involved and should immediately issue permits based on the 99% pollution sources on the planet being the 1500 active volcanoes and their beyond huge emissions affecting practically all air on Earth.	AIR14
1765	The U.S. Corps of Engineers jurisdiction is limited to commercially navigable waters. The closest being the Duluth docks and harbor 60 miles away from the project. Or the U.S. Corps of Engineers does not and has never had jurisdiction on this project.	COE11
1766	Snow fall in NE MN and other places has 50 parts per billion Mercury; most likely from all those 1500 natural volcanic emissions.	AIR05
<b>Sender Name (Submission ID) Terry Houle (11562)</b>		
2206	I do not feel the SDEIS contains enough detail on how our water, wetlands, Lake Superior and the BWCA will be protected for 500+ years.	WILD01
2206	I do not feel the SDEIS contains enough detail on how our water, wetlands, Lake Superior and the BWCA will be protected for 500+ years.	WILD01
2207	I do not want the forest land sold, rented or traded for this project. Need more info cause not a fair trade.	LAN03
2207	I do not want the forest land sold, rented or traded for this project. Need more info cause not a fair trade.	LAN03
7911	This project is a violation of section 404c under the Clean Water Act and should not be allowed.	PER35
7912	DNR Commissioner Landwehr comments about the SDEIS comment process I believe have tainted the entire SDEIS process and unduly influenced people.	NEPA15
7914	The flow rate information contained in the SDEIS has already been called into question for accuracy. This should be restudied to insure its validity and accuracy for something this important	WR003
7916	Also believe there was a bias of where and how information was obtained with links between Polymet/Glencore and the MN Department of Natural Resources which should be investigated if allegations are true	NEPA15
11313	This project is a violation of section 404c under the Clean Water Act and should not be allowed.	COE03
11316	DNR Commissioner Landwehr comments about the SDEIS comment process I believe have tainted the entire SDEIS process and unduly influenced people.	NEPA15

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Terry Houle (11562)		
11317	Minnesota Superfund Sites in St Louis County are already numerous. To add more potential risk to a sensitive area in not acceptable.	CU11
11318	The St. Louis River Watershed Monitoring and Assessment Report published in March 2013 stated: "However, historic and current land use changes throughout the watershed have proven to be damaging to the many lakes, rivers and streams within the St. Louis River watershed."Therefore [the NorthMet Project area is] already a fragile area with a proximity to the Boundary Waters Canoe Area and with all the uncertainties on copper nickel mining that may leave pollution for hundreds of years this is not acceptable.	WR111
11320	Due to this new type of mining I do not believe the health impacts have been studied and identified in this SDEIS report. It is something that should be taken into account before moving forward any further.	HU01
11321	The flow rate information contained in the SDEIS has already been called into question for accuracy. This should be restudied to insure its validity and accuracy for something this important and may be over hundreds of years.	WR003
11322	believe their was a bias of where and how information was obtained with links between Polymet/Glencore and the MN Department of Natural Resources which should be investigaged if allegations are true.	NEPA15
12515	This project is a violation of section 404c under the Clean Water Act and should not be allowed.	COE03
12526	Therefore already a fragile area with a proximity to the Boundary Waters Canoe Area and with all the uncertainties on copper nickel mining that may leave pollution for hundreds of years this is not acceptable.	WR111
12529	Due to this new type of mining I do not believe the health impacts have been studied and identified in this SDEIS report.	HU01
12531	The flow rate information contained in the SDEIS has already been called into question for accuracy. This should be restudied to insure its validity and accuracy for something this important and may be over hundreds of years.	WR003
15099	I do not believe the health impacts have been studied and identified in this SDEIS report. It is something that should be taken into account before moving forward any further.	HU01
<b>Sender Name (Submission ID)</b> Terry Miller (21890)		
3293	We are impressed with the great deal of depth contained in the completed study and are convinced it shows the safety and viability of the project.	NEPA16
3296	On the contrary, the thorough study indicates the extremely slow rate of travel that the water will filter down through the bedrock, and that water quality standards will still be met even that far out on the timeline [200 to 500 years].	WR190
3297	Let's not squander the opportunity to be the suppliers of these precious resources that will also bring to our state so many new jobs (360 full-time and 600+ related) and considerable added revenue for the State of Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Terry Nevalainen (21992)		
3312	Polymet has more than answered all questions asked of them and addressed all regulatory requirements.	NEPA16

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Terry Nevalainen (21992)

3313 Allowing Polymet to operate will definitely help the local, state and federal governments fund further projects and aid with financial support from Polymet and local businesses through taxes created from the employment of the public. At this time in our age we need all the employment help we can get. SO10

**Sender Name (Submission ID)**    Terry Olsen (40759)

14033 Reject PolyMet's plans flawed with predictable failures in the water pumping and treatment system and the power supply to run that system. WR143, WR144

14034 if the company declares bankruptcy, who would be left to repair the damage and restore the communities and habitat? FIN01

14035 Once our sacred and natural Minnesota lakes, rivers and aquifers are polluted from a toxic spill, there is no way to ever recover what we lost...we can not recover what we could lose from quality of life, natural habitat, economic benefits of tourism and the livability of the local communities. SO01

15346 The loss of habitat for the lynx and moose and other rare and endangered species is irreplaceable. WI02

15347 The damage of mercury to fish and the arsenic in the water would have significant impact on the health of our children and at-risk people. HU03

15349 I ask that...DNR identify critical habitat that should not be disturbed WI02

15350 I ask that...that the state health department experts identify real health impacts, especially in consideration of infants and children and the environmental justice impacts from this mine HU01

15351 I ask that...copper and nickel recycling be investigated and pursued as an alternate and cleaner option. ALT09, ALT16

**Sender Name (Submission ID)**    Terry Williamson (27011)

15264 All of our communities will be lessened to the extent that we allow the limited wilderness that now exists to be further diminished by mining and industrial pollution. SO01

**Sender Name (Submission ID)**    Tersenia Schuett (46588)

9139 Unforseen, predictable and unpredictable incidents and accidents are not addressed in Polymet's proposed water treatment plan. PD22, WR144, WR202

9143 All the financial assurance dollars in the world are not worth taking the risk of impairing MN waters. FIN08, FIN10

9146 In light of this, I see JOBS as a four-letter word. Don't let ~350 short-term jobs, the heft of big business, and dollar signs cow the DNR into submission. SO02

**Sender Name (Submission ID)**    Tess Zangrilli (34016)

13242 It is in the public's interest that water, which is vital to life be protected. WR195

**Sender Name (Submission ID)**    The Bremicker-Bartels (42963)

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> The Bremicker-Bartels (42963)		
7752	A required period of two to five hundred years to maintain the infrastructure, test water and ensure compliance is simply not credible in terms of history and the life time of corporate entity –even the longevity of government is questionable given the continued assault on governmental functions. To suggest that the political, financial, and technical will power will be present to assure effective water treatment over the required period of time is ludicrous.	FIN01
<b>Sender Name (Submission ID)</b> the Maloney Family (43254)		
15794	Four hundred jobs for twenty years traded for a sulfide tailings is not worth it. It is not even going to produce that much in minerals.	SO01
15795	Nothing grows around these mines. The pH is wrong for plants.	VEG06
15797	The ore deposit is not going anywhere. Let us leave it for our future Minnesotans with improved technology to decide if they want to mine the ore.	NEPA03
<b>Sender Name (Submission ID)</b> The Mowans (38548)		
14026	Three-hundred jobs will never justify what the pits, up to 700 feet deep and the sulfur piles 20 stories high will do to the environment, FOREVER. After the 20 year run when all the wealth leaves this country these miners will again be jobless	SO01
<b>Sender Name (Submission ID)</b> The Nature Conservancy (42982)		
4161	We believe the conversion of the NorthMet site from lowland forest to industrial mining and ore processing will result in a significant loss of high quality habitat that is important to the ecological integrity of the Sand Lake-Seven Beavers landscape.	VEG03
4163	Specifically, the EIS should include and evaluate a range of meaningful project alternatives, potential modes of failure, contingencies and mitigating measures, adaptive management, cumulative effects, transparent estimates and durable vehicles for financial assurance.	ALT06
4164	Despite the regional and cumulative nature of impacts, the cumulative effects assessment in the NorthMet SDEIS receives inadequate focus, suffering from deficiencies in approach, scope of affected area, future actions and environmental trends evaluated... A watershed framework similar to that used in the Bristol Bay assessment is needed to adequately evaluate the direct and cumulative impacts of the NorthMet project and any subsequent mine development in the region...A watershed approach to mitigation can be implemented and administered under the 2008 mitigation rule through an ILF program or “umbrella” mitigation bank guided by a watershed conservation plan and subject to key standards of practice.	CU03, CU05
4184	The NorthMet project site is located in the headwaters of the St. Louis River, specifically the Embarrass and Partridge Rivers adjacent to Sand Lake-Seven Beavers. These watersheds have some of the highest condition and watershed integrity scores... The St. Louis River watershed is identified as a Conservancy freshwater priority... These watersheds have some of the highest condition and watershed integrity scores in the St. Louis River watershed...In sum, the biological monitoring of the NorthMet project site indicates the waters are capable of supporting many important fish and macrobiotic species.	AQ20
4185	The NorthMet project would directly affect 2400+ acres designated as having high biodiversity significance, including native plant communities considered “imperiled” or “vulnerable” and nine SGCN Need identified in the Minnesota’s State Wildlife Action Plan...The SNF lands that comprise the proposed NorthMet Mine Site are designated as an area of high biodiversity significance by the MBS...	VEG02

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4781	Although the SDEIS describes plans for reclamation at the site post-closure, imperiled, vulnerable and other native plant communities of high biodiversity significance are very difficult to restore, and thus it is highly unlikely that the impacts could be reversed via reclamation. A wealth of research and experience supports the assertion that many of the most imperiled and “vulnerable” native plant communities are very difficult to restore. For example, communities such as peatlands take a long time to establish, and would not be compatible with some of the stated goals for reclamation in the SDEIS including “rapidly establishing a self-sustaining plant community ...and minimizing the need for maintenance.”	VEG02, VEG03, VEG05
4782	Indirect effects on adjacent wetlands from dewatering are also significant. The SDEIS anticipates impacts to adjacent areas and potential indirect impacts on wetlands and water tables from groundwater table drawdown up to 3,200 ft. from the mine pit (SDEIS Section 5.2.2.3.2). These impacts have the potential to negatively impact adjacent high quality and vulnerable wetland types as well as wetland functions. This issue is further discussed in our comments on wetlands and mitigation herein. We also note that the question of the extent and severity of impacts to adjacent wetlands is included in the SDEIS 8.3 and Appendix C.	WET10
4783	Several rare and high quality communities that will be eliminated by the Mine Site are ranked as having high vulnerability to climate change, meaning that they will be under even greater pressure throughout their range. These include acid peatlands and forested peatlands. Additional communities ranked as vulnerable to climate change that will be negatively impacted by the project include wet forest systems, riparian areas, and headwater stream systems...Several of the rare and high quality communities that will be eliminated by the NorthMet mine site were ranked as “high vulnerability” to climate change. These include acid peatlands, forested peatlands, and wet forest types.	VEG02, VEG03
4784	Stream and river systems are also identified as potentially some of the most vulnerable systems to climate change in the upper Midwest and Great Lakes due to the combination of increased storm runoff, more frequent drought/reduced baseflows, land cover change, nutrient loading, altered thermal regimes, and invasive species. Based on the IBI assessment of the Partridge and Embarrass Rivers, several headwater streams have been classified as cold water or cool water. Both of these thermal regime types are also considered highly vulnerable in northeast Minnesota under anticipated climate change due to the sensitivity of many cold water species to increases in water temperature.	WR180
4785	All aspects of environmental review, permitting and mitigation for the NorthMet Project and the Land Exchange should consider the high biodiversity value, landscape context and irreplaceability of habitat that will be lost or impacted.	PD01
4786	The SDEIS proposed action includes the exchange of a single 6,650.2-acre parcel of federal land for multiple tracts within the proclamation boundary of the SNF. A priority habitat for the Conservancy is the 6,344 acre, Sand Lake-Seven Beavers preserve, located within the Sand Lake-Seven Beavers landscape, which harbors one of the state's largest areas of lowland conifers...The proposed mine and plant site occur within this significant landscape.	LU01
4787	Both the federal and exchange lands occur within the SMF ecoregion...The USFS goals for the Superior National Forest include restoring long-lived conifer species and maintaining and increasing older forest growth stages. These goals are based on the recommended desired outcomes, goals and strategies developed in the MFRC’s 2003 Northeast Landscape Plan; a plan developed by approximately 60 people representing agencies, conservation non-profits, industry, and private landowners. The Conservancy shares these goals.	VEG03
4788	In addition, to determine that an exchange well serves the public interest, the authorized officer must specifically find that the resource values served by the non-Federal lands to be acquired equal or exceed the resource values served by the Federal lands to be conveyed...However, overall neither the proposed land exchange, nor Alternative B represents equal ecological or resource values. Again, to determine that an exchange well serves the public interest, the authorized officer must specifically find that the resource values served by the non-Federal lands to be acquired equal or exceed the resource values served by the Federal lands to be conveyed. The proposed exchange appears to fail this test.	LAN01

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4789	In addition, it is important to note that the federal lands were acquired under the Weeks Act of 1911 (36 Stat. 961, as amended 16 U.S.C. §§ 515, 521) which permitted the federal government to purchase private land in order to protect the headwaters of rivers and watersheds in the eastern United States. As noted above, the mine site is located within the Sand Lake-Seven Beavers landscape, which encompasses the headwaters of the St. Louis River. Conversion of the federal lands to mining is therefore contrary to the original intent of the federal enabling legislation to protect ecologically significant headwaters.	LAN02
4790	Given the fact that the proposed land exchange will result in a significant net loss of biodiversity habitat, the U.S. Forest Service (“USFS”) should find that the Land Exchange, as it is currently proposed, is not in the public interest as required by 36 C.F.R. § 254.3(b).	LAN01
4791	To avoid a significant net loss of biodiversity habitat, the Land Exchange should expand the portfolio of non-federal tracts to be acquired to include lands with at least a MBS rank of moderate within the St. Louis River Watershed. Focus should be on lands that mimic the habitat lost in the exchange, including not only wetlands, but a wide variety of lowland plant communities, forested bogs and swamp.	VEG02
4792	The final EIS should ensure that the lands with the highest MBS rankings remain part of the Land Exchange. These include Tract 2 (Lake County north and Lake County south), and Tract 3 (Wolf Lands 1-4).	VEG02
4793	The final EIS should eliminate Alternative B, the more limited Land Exchange, since it has no ecological benefit.	ALT23
4794	We note that Shrub swamps represent 12% of the impacted wetland acres and are recognized as distinct wetland types and offer some important functions for wildlife and water quality. However, it should be recognized that shrub swamps often represent a degraded successional form of more herbaceous wetlands such as marsh and fen caused by artificial drainage or fire suppression. As such they may not always be appropriate targets for mitigation or restoration. The Conservancy thus recommends careful evaluation of the setting and prior history of all shrub wetlands in the impacted areas, and where appropriate using the original historic wetland type as the target for compensatory replacement.	WET05
4795	Additionally, the Cooperating Agencies (SDEIS 8.3, MDO 8) provide an alternative analytical method for estimating these indirect impacts from groundwater drawdown and determine that as many as 5,720 acres would be vulnerable to “severe” impacts. These differences are indicative of large uncertainties in the effects of hydrologic alteration that should be reconciled in the EIS and an appropriate single estimate or range provided. We support the Cooperating Agencies’ method as technically valid, and no less reasonable than the two approaches documented in the SDEIS... If the uncertainty persists, the SDEIS must consider the worst case analysis, and if another basis is used for decision purposes, must justify the basis on which a lesser impact is predicted....The final EIS should resolve the uncertainties in the analysis of indirect impacts of hydrologic alteration and provide a supported single estimate or range of acres and wetland types affected. If the uncertainties cannot be resolved, worst case analysis must be included and addressed.	WET10
4796	For this reason the Conservancy strongly supports an up-front commitment to avoidance and minimization of impacts and compensation for lost wetland functions -- at a minimum for wetlands identified as highly likely or moderately likely to experience groundwater drawdown and fragmentation impacts. Such commitment should include identification of viable mitigation options and sites, and applicable compensation ratios in advance of project permitting, along with performance expectations such as timing and triggers for implementing mitigation...The Record of Decision and permit conditions should include advance commitment to mitigation for all indirect impacts, including identification of mitigation sites and compensation ratios.	COE02

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4797	The SDEIS should demonstrate how the project will address the full mitigation hierarchy required under state and federal rules... The 2008 Federal Mitigation Rule reaffirmed an appropriate “mitigation hierarchy” ... The mitigation hierarchy insists that a project applicant must first consider designs, locations and approaches that avoid impacts, then develop plans to minimize those impacts that are unavoidable, and compensate for lost wetland functions and values. The Rule also asserts that compensatory mitigation must be sited with respect to the context and needs of the watersheds in which they occur. Minnesota’s Wetland Conservation Act similarly sets out a required “sequencing” plan that shows the applicant has avoided, minimized, replaced or otherwise compensated for lost wetland functions according to the hierarchy...Insufficient efforts have been made to avoid and minimize impacts through alternative project designs such as underground mining which was taken out of consideration largely for economic justifications. We recommend that the EIS include a thorough sequencing plan that demonstrates adherence to the mitigation hierarchy required by state and federal law and evaluates meaningful alternatives for avoiding and minimizing wetland impacts...The final EIS should include a sequencing plan that demonstrates adherence to the mitigation hierarchy of avoid, minimize and mitigate impacts to wetlands as required by state and federal law.	WET03, WET20
4798	Higher compensation ratios and financial assurance are warranted because of the scale, type and setting of impacted wetlands and the difficulty restoring their functions and values...Moreover, because of the uncertainty in the range of wetlands to be affected by indirect impacts, as discussed above, it is even more important that a higher ratio of mitigation be used, so that the uncertainty does not undermine the assurance of appropriate mitigation overall... It is important to recognize that mitigation is not likely to restore all lost functions and that restoring wetland functions of any kind will take considerable time. Thus it is important that these shortcomings are compensated through higher than normal mitigation ratios. However, it is also important that success criteria for this kind of wetland mitigation goes beyond conventional compliance success, to include functional success, to determine if ecological functions of the system have been restored, and landscape success, to determine how restoration has contributed to ecological integrity of region or watershed...A compensation ratio of 2:1 or higher (and no less than 2:1) should be used for unavoidable impacts to bog, coniferous swamp, hardwood swamp and other wetlands of the lowland conifer ecosystem.	WET04, WET05
4799	The 2008 Mitigation Rule and St. Paul District policy also allows for the agency to require financial assurance mechanisms to ensure that compensatory mitigation is successfully implemented and permit conditions are satisfied in the event of unforeseen circumstances. Under the Rule, the USACE District Engineer can determine that financial assurance is not necessary if alternate mechanisms are in place to ensure confidence in mitigation outcomes. Minnesota state rules (Minn. R. 8420.0552) also require financial assurance for mitigation... the Conservancy believes that financial assurance should be set forth in the final EIS as required under state and federal law. Such financial assurance should be separate from that required for mine reclamation and long term maintenance and should be required until mitigation success criteria are demonstrated to have been fully achieved, not just until construction is completed...Financial assurance, separate from that required for mine reclamation, should be required to ensure the success of mitigation, to cover the costs of monitoring and adaptive management and to ensure against indirect impacts to wetlands.	FIN05, FIN11
4800	Careful monitoring design is needed to validate indirect wetland impacts and evaluate progress of mitigation toward satisfaction of success criteria... However, we believe more detail is needed in the EIS on the monitoring, adaptive management and decision framework that will be used to determine if and to what extent and severity indirect impacts are occurring, the trigger points that would require mitigation to be implemented, and the compensation ratios that would be required...The final EIS should fully address monitoring design, adaptive management, and the decision framework for identifying indirect impacts and associated mitigation.	WET02
4801	A robust monitoring design should require monitoring in all potential impact categories, not just in Highly and Moderately impacted zones.	WET02
4802	Additionally, biological monitoring, including annual vegetation surveys, should be done in conjunction with hydrologic monitoring locations, and hydrologic monitoring should utilize continuous recorders at all sampling sites, with all data collected made available to the Co-Lead Agencies and to the public.	WET22

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4803	In addition to shallow monitoring wells or piezometers, deeper wells at the same locations (in combination with shallow wells) would provide better evidence of the impacts of groundwater drawdown.	WET22
4804	Weather stations at one or more sites are needed to help distinguish true drawdown impacts from the effects of weather and climate.	WET22
4805	Multi-parameter biological monitoring is also recommended, not just of plants, which often have considerable resilience and do not show impacts for several years, especially in forested wetlands, but also of invertebrates and other biota sensitive to changes in hydrology. Focus should be on edges of wetlands and other locations that provide early indicators of hydrologic impacts.	WET22
4806	Reporting annual average water levels or other such integrated statistics may be nearly meaningless when used to detect drawdown impacts, and it is important to detail the wetland hydrograph at daily, weekly and monthly intervals, all of which are easily possible with the use of continuous recorders.	WET22
4807	In addition to water levels, annual and growing season hydroperiods and hydropatterns are biologically important for determining wetland function and should be reported in consultation with agency staff.	WET22
4808	The commitment to identify and monitor reference wetlands in the monitoring design is laudable. We recommend that monitoring parameters at reference wetlands be the same as impacted wetlands in terms of frequencies, type and locations. Reference locations should be free of all direct and indirect effects from the NorthMet project or other disturbance, including existing or future mining projects, yet close enough in proximity, setting and type that weather and other regional factors are reasonably similar to that of the impacted wetlands.	WET22
4809	Mitigation should focus on viable options within the St. Louis River basin, including watershed- based approaches, mitigation banks or other opportunities to restore aquatic functions at a scale commensurate with the impacts from the NorthMet project... The Co-Lead Agencies should require that site searches focus on a larger suite of in-watershed mitigation opportunities including ecologically suitable wetland banking, on-site mitigation and in lieu fee program development that addresses restoration of functional loss in the St. Louis watershed... As per the 2008 Mitigation Rule, out-of-basin mitigation should be strongly discouraged given the cumulative un-replaced losses of functions and services that accrue in the impacted watersheds....Mitigation should focus on restoration of functional loss in the St. Louis River Watershed and should include ecologically suitable wetland banking, on-site mitigation and an in lieu fee program development.	WET03
4810	As noted in the SDEIS (SDEIS, 5.2.3.3.2), opportunities exist for restoration of tens of thousands of acres of peatlands affected by ditching within the St. Louis River watershed and northeast Minnesota in general, but a determination by the USACE of the feasibility of this for mitigation is not yet completed. The Conservancy strongly urges the USACE to complete this assessment prior to making a final determination of mitigation requirements for the NorthMet project...The U.S. Army Corps of Engineers ("USACE") should complete its feasibility determination for peatland restoration within the St. Louis River Watershed and incorporate this information into its determination of mitigation requirements for the NorthMet project.	WET01, WET03, WET04
4811	The Conservancy believes a coordinated watershed approach to identifying mitigation needs and options is warranted for the Lake Superior basin in Minnesota and that sufficient information is available to conduct a watershed-wide analysis... Using a watershed approach, mitigation could be implemented as an in-lieu fee program or umbrella bank in accordance with a watershed plan as is currently being discussed in the context of the Northeast Minnesota Mitigation Strategy.	WET03

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4814	The SDEIS analysis of the potential impacts from contaminated water is predicated on best-case assumptions whereby all equipment functions as designed, no operator error is anticipated, and the potential for failure is insignificant. The SDEIS does not provide adequate analysis of the potential impacts from wastewater releases that could reasonably be expected to occur due to human error, equipment breakdowns, or other system failures associated with wastewater collection, transportation, and treatment...The final EIS should identify for all phases of the project potential risk and release scenarios that could occur during routine operation and probable failure scenarios at the Mine Site, Plant Site, and Transportation Corridor including the tailings basins, stockpiles and breakdown of the reverse osmosis systems. The final EIS should evaluate the effect on downstream resources in terms of failure type, duration, and magnitude as was accomplished in the USEPA’s Bristol Bay assessment.	WR202
4815	The Tailings basin, Waste Rock Stockpiles, and Hydrometallurgical Residue Facility are potentially significant threats to groundwater quality. Therefore, the stability and structural integrity of these storage systems warrant additional consideration when evaluating potential risk scenarios... The Conservancy is concerned that the tailings basin will contribute to water quality impacts by leaking contaminants into the ground waters that may be hydraulically connected to surface water. Given the concerns regarding the structural integrity of these storage systems, the Conservancy believes that the analysis of the stability of the Tailings Basin, waste rock stockpiles, and Hydrometallurgical Residue Facility warrant special consideration when evaluating failure and risk scenarios.	WR066, WR067, WR127, WR128
4816	The nature of the effluent from mining operations, and the harsh weather conditions of northern Minnesota pose unique challenges to the effective operation of the wastewater treatment systems proposed at the Project site. The potential barriers to effective wastewater treatment should be discussed and addressed in the SDEIS... The NorthMet SDEIS does not address potential causes of breakdown or compromise of the reverse osmosis system, or the potential for release in such scenarios, nor does it assure that replacement membranes would be promptly available and easily installed in order to minimize any impacts from what would seem to be routine failures of these systems in other facilities.	WR128, WR143, WR144
4817	Minnesota’s mining reclamation rules state that a “mining area shall be closed so that it is stable, free of hazards, minimizes hydrologic impacts, minimizes the release of substances that adversely impact other natural resources and is maintenance free.” Thus, it is important that long-term maintenance needs of active or “passive” treatment systems be thoroughly understood, documented and incorporated into calculation of financial assurance requirements.	PD02
4818	The Conservancy recommends that any consideration of a passive system (e.g. an artificial wetlands treatment system) include an analysis of performance over the long term and under extreme weather conditions as experienced in the region...If wetlands are to be used as a wastewater treatment method, the final EIS should include an analysis of expected wastewater treatment performance during the winter, the length of time a wetland treatment system can function before reaching capacity and how the effectiveness of the system will be monitored. It should also discuss long term maintenance of the system, such as removal and disposal of accumulated metals in the wetland plants and sediments.	WR122, WR137
4819	Given the inevitability of errors, break downs, accidents, and unexpected events over the long run, some amount of failure should be anticipated and incorporated into the project’s design and management. The focus of design and assessment should be on development of decision frameworks and strategies that ensure it is “safe-fail,” or safe in failure, rather than fail-safe. The approach taken in the SDEIS is simply to assume that everything will work as predicted, failures will not occur and the regulatory process will ensure that environmental risks will be mitigated.	PD22

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4820	Adaptive management is proposed as a framework for dealing with uncertainty, but the SDEIS does not describe an effective AWMP. The SDEIS does not comprehensively evaluate risk due to the lack of a thorough examination of potential failures and the lack of an effective adaptive management plan... The “wait and see” approach reflected in the SDEIS is not adaptive management, and is an inadequate strategy for addressing uncertainty and change... While the SDEIS does include general information about adaptive management plans, it states the AWMP (and other adaptive plans), are preliminary in nature and will be “adjusted” during the final design and permitting process...The Adaptive Water Management Plan (“AWMP”) should provide a clear framework for understanding how adaptive management will work. An adaptive management framework is required that specifies the management assumptions, the monitoring design, thresholds that will trigger mitigation actions, and the actions that will be taken if those thresholds are met.	PD22
4821	All permits should be conditioned on commitment to mitigating actions identified in the AWMP and other adaptive management plans as documented in the final EIS and Record of Decision.	PER06
4822	Given its importance to the environmental risks of the NorthMet project, opportunity for public comment on the AWMP should be provided prior to issuance of a Permit to Mine.	PER01
4823	The NorthMet Project Action has the potential to significantly alter flows and water levels in nearby streams and wetlands, including headwater streams of the Partridge and Embarrass Rivers that are both tributary to the St. Louis River, a Conservancy freshwater conservation priority.... Because the Conservancy’s SMF and Great Lakes ecoregional plans have identified the St. Louis River headwaters (adjacent to the Partridge and Embarrass River sub-watersheds) as a freshwater priority, we are evaluating the SDEIS with respect to the potential to impact flows in the Partridge and Embarrass Rivers and the St. Louis River.	WR081, WR111, WR114, WR183
4824	The Conservancy supports the use of the IHA criteria for assessing hydrologic alteration. However, we note that 20% alteration can represent a significant departure at extremely low flow or high flow conditions when it is additive to the range of natural variation....More protective flow criteria (< 5% alteration) should be used for flows at the low and high end of the frequency distribution to evaluate the potential for impact to aquatic systems. Mitigating measures should be specified for periods when flow alteration exceeds this criterion.	WR130, WR185
4825	The final EIS should reevaluate assumptions about the basic hydrology of the project site in light of current data, including baseflow estimates in affected streams. Assessment of impacts and conclusions derived from flow and water quality modeling results should be revisited if those assumptions are in error.	WR003, WR052, WR071, WR086, WR091
4826	We are concerned, however, about the operative capacity of the WWTF (particularly post-closure) and if the pits and the RO facility will be able to handle 100- or 500-year precipitation events (such as that which occurred in the St. Louis basin in June 2012) indefinitely following closure of operations. To avoid hydrologic impacts from altered storage and runoff, the wastewater pits and WWTF will have to be able to accommodate the full range of potential runoff events, and control discharges so as to make them seasonally appropriate and comparable to the natural hydrograph...The final EIS should explicitly define and describe “adaptive engineering controls” as well as address the capacity to accommodate the full spectrum of extreme storm events at both the Plant Site and Mine Site, including event frequencies anticipated under future climate change scenarios. The EIS should also describe the capacity of the wastewater treatment plant (“WWTP”) to pattern permitted discharges on the natural flow regime.	WR130, WR148, WR180, WR189
4827	The final EIS should include a sensitivity analysis of flow and water quality impacts to a range of baseflow, climate, and leakage estimates. The results of this analysis should be used to identify mitigating actions that would be implemented to avoid additional impacts.	WR022, WR091, WR180, WR197
4828	The NorthMet SDEIS examines and then dismisses the possibility that NorthMet flow changes have any significant implications for downstream channel stability... However, the final EIS should give greater consideration and analysis of the effect of the project on stream channel stability.	WR003

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4829	The SDEIS states that flows will return to nearly pre-NorthMet Project Proposed Action conditions during closure. However, the Conservancy suggests that downstream impacts to flows in both rivers may extend beyond the 20-40 year timeframe, based on alterations of surface and groundwater hydrology made at the Plant and Mine sites, in conjunction with mechanical treatment operations and discharges, and existing alterations discussed in the SDEIS. It is unclear how much longer the Northshore Mining dewatering and associated augmentation of the Upper Partridge River will continue. Regardless, additional increases in precipitation, precipitation intensity, and variability are considered extremely likely under most downscaled climate models. NorthMet project impacts may be either additive or compensatory to these effects depending on the time frame. The SDEIS fails to address how climate change may affect its predictions regarding flow levels....Assessment of potential hydrologic impacts of the NorthMet Project for the Partridge and Embarrass Rivers should be evaluated based on up-to-date understanding of current and future climate scenarios.	WR005, WR006, WR077, WR180
4830	Based on the IBI assessment of the Partridge and Embarrass Rivers, several headwater streams have been classified as cold water or cool water. Both of these thermal regime types are also considered highly vulnerable in northeast Minnesota under anticipated climate change...Given the potential for flow augmentation and its impact on erosion and sedimentation, the EIS, Record of Decision and permit conditions should address appropriate monitoring and adaptive management for thermal regimes, downstream sediment and associated habitat impacts.	WR130, WR180
4831	NorthMet Project area waters that have restoration potential for wild rice should be designated as “wild rice waters” and should be required to meet Minnesota’s sulfate standard.	WR154
4832	Minnesota Tribes hold substantial legal and cultural interests in wild rice habitat in the project area that should be recognized and protected... In the context of PolyMet’s proposed project, it is important to note that these legal rights might be affected by pollution and hydrologic modifications associated with development and permitted industrial uses that impact natural resources... Therefore, continued tribal access to sustainable and healthy native wild rice is an important issue for the Conservancy...The “affected area” considered by the SDEIS for wild rice impacts should include the entire St. Louis River watershed.	WR159, WR163
4833	Although there is no comparable research on wild rice, it is clear that a fuller understanding of methylmercury fate and transport is needed, and should be part of the adaptive management plan for NorthMet and other ongoing mining operations and reclamation activities. Given the mounting evidence demonstrating negative impacts to wild rice from relatively low levels of sulfides, the positive correlation between levels of sulfate in water column and sulfides in sediment, combined with the remaining uncertainties about long-term impacts and the relationship between sulfate and methylmercury, the weight of evidence tilts against a weakening of the 10 mg/L sulfate standard.	WR130, WR160
4834	The current 10 mg/L sulfate standard for wild rice waters should remain in effect...The waters affected by the NorthMet Project should not be permitted to seasonally exceed the sulfate standard.	WR153, WR160
4835	The NorthMet project discharges and other activities in the watershed should be monitored and evaluated for flow regime alterations that could potentially impact downstream wild rice waters. Potential corrective actions should be explicitly specified in the water management plan.	WR157
4836	The SDEIS needs further focus on cumulative effects analysis, especially the geography of the affected area, future actions considered and incorporation of climate change... The approach in the NorthMet SDEIS is to use different timeframes and cumulative effects affected areas (“CEAA”) depending on the resource being considered. This inconsistency has the effect in some cases of narrowing the scope of the analysis such that it leads to circular logic that precludes evaluation of the full picture of impacts. Similarly, an overly-narrow definition of reasonably foreseeable future impacts is used in the SDEIS that eliminates consideration of other likely mining actions. Accordingly, our comments below are focused on future actions considered, timeframe and area affected by cumulative impacts.	CU05

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4837	The EIS must therefore provide some analysis of the increased impacts that could be expected from additional mining operations within the area, especially ones that will likely come into operation within the same period. While the current status of the other projects might prevent a detailed analysis, the ability to develop a reasonably thorough understanding and evaluation of cumulative risks of mining in a large watershed sufficient to inform permitting decisions is demonstrated by the recent USEPA assessment in Bristol Bay, Alaska.	CU02, CU03
4838	The Conservancy believes this definition [of speculative] is too narrow, and excludes other nearby copper-nickel, PGM and titanium oxide deposits now in the early stages of development. These excluded projects include potential future actions at the nearby Teck American Mesaba deposit, Encampment Minerals' Serpentine deposit, Cardero Resource Corporation's Longnose deposit and Twin Metals' Maturi and Birch Lake deposits...The cumulative effects assessment should include other nearby non-ferrous mining developments, as well as planned expansions of taconite mining and processing as reasonably foreseeable future actions, as detailed in our comments.	CU02
4839	The Conservancy believes that the full St. Louis River watershed is the appropriate CEAA for impacts to water resources, high biodiversity sites, species, wild rice, wetlands and other critical habitat. The NorthMet project site is part of the Sand Lake-Seven Beavers conservation landscape, also known as the Headwaters Site because of its position at the headwaters of the St. Louis River...The cumulative effects assessment should use the entire St. Louis River watershed as the cumulative effects affected area for impacts to water resources, high biodiversity sites, species, wild rice, and wetlands.	CU01
4840	All NorthMet Project area waters are also designated Outstanding International Resource Waters which prohibits any new or expanded point source discharges of bioaccumulative substances of immediate concern (i.e., mercury) unless a non-degradation demonstration is completed and approved by the MPCA.	MERC01
4841	Yet the SDEIS actually uses a smaller CEAA for wetland loss in the cumulative effects analysis than it does in the assessment of direct impacts to and mitigation for wetland loss from the NorthMet project alone: the CEAA is confined to the Embarrass and Partridge Rivers while the entire St. Louis River watershed is appropriately considered for direct impacts to wetlands and mitigation.	CU01, WET18
4842	As described in our comments on water flows and levels, loss of forested wetland habitat also has effects on the temperature of stream and riparian habitat that can have important implications for sensitive species such as moose. When considered cumulatively with the loss of wetland function in the Partridge and Embarrass watersheds and the effects of climate change, such impacts can have profound impacts on the survival of vulnerable species.	WI01, WI02, WI08
4843	The Conservancy believes that the cumulative effects analysis should focus on the amount of habitat of different types, including lowland conifer wetlands and wild rice, which occur across an ecologically meaningful region such as the St. Louis River watershed or the Sand Lake-Seven Beavers landscape, and determine how all past, present and reasonably foreseeable future projects cumulatively modify habitat availability. Then it should estimate how the remaining habitat conditions compare to the needs for well distributed, viable populations of species that depend on the habitat.	CU17
4844	A similar analysis should be completed for watershed functions, first determining how projects, including NorthMet, have cumulatively modified important hydrologic functions, then comparing the results of the analysis to an assessment of needs.	CU15
4845	The Conservancy believes the proper scale of these analyses, and thus for the CEAA, is the St. Louis River watershed, which encompasses the area where cumulative effects on wetlands, wild rice and water resources are most relevant, contains both the Sand Lake-Seven Beavers and Headwaters Site conservation landscapes and a portion of the Hundred Mile Swamp, as well as the majority of northern Minnesota's industrial mining district. Importantly, the St. Louis River watershed is also the heart of wild rice cultural and subsistence use and the region of highest density of remaining wild rice in the 1854 Ceded Territory (SDEIS, Appendix C).	CU01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	The Nature Conservancy (42982)	
4846	The cumulative effects assessment should include an analysis of how all projects have cumulatively modified habitat availability and compare this with habitat needs of dependent species using a population viability analysis approach.	VEG03, WI02
4847	Overall, however, the SDIES appears to take the perspective that climate change effects are so uncertain or imprecise they cannot be incorporated into the assessment in any meaningful way... The Conservancy believes that climate change effects are occurring now, are relevant over the operational and post-closure timeframe of the NorthMet project and should be incorporated into the cumulative effects assessment...The cumulative effects analysis should incorporate climate change effects on sensitive habitat, species and water resources.	AIR01, CU03
4848	While acknowledging the uncertainty inherent in climate change predictions, the SDEIS fails to demonstrate how that uncertainty will be mitigated or whether freeboard, margins of safety and excess water storage and treatment capacity are adequate over the 20-year period of mine operation, much less the 200 to 500-year post closure period during which treatment may be required...The SDEIS should demonstrate how climate uncertainty will be mitigated in the project design and operations, identifying the specific mitigating measures employed.	WR180
4849	The state and federal government should conduct a “tier 1” regional environmental assessment using a Programmatic Environmental Impact Statement (“PEIS”) or Generic Environmental Impact Statement (“GEIS”) model before significant additional mining development occurs.	CU19
4850	The regional environmental assessment should focus on the St. Louis and Rainy River watersheds and be structured similar to the USEPA’s Bristol Bay, Alaska assessment and include the nine essential elements of that study.	CU01, CU03, CU18
4851	The SDEIS should be supplemented to include at least one alternative from each of the following categories: alternative sites; alternative technologies; modified designs or layouts; modified scale or magnitude; and alternatives incorporating reasonable mitigation measures.	ALT06
4852	MEPA prohibits state action, including issuance of a permit, for activities “significantly affecting the quality of the environment” so long as there is a feasible and prudent alternative. Minn. Stat. § 116D.04 subd. 6 (2013). It specifically mandates that “Economic considerations alone shall not justify such conduct.”...Yet both the underground mine alternative and the west pit backfill were excluded as alternatives for economic considerations... The underground alternative was not fully evaluated because PolyMet refused to pursue it:... Instead, the Co-lead Agencies conducted “a semi-qualitative screening analysis of the alternative.”...NEPA requires that the agency evaluating the proposed action verify the accuracy of information supplied by the applicant...The Co-lead agencies appear to have adopted this conclusion [of PolyMet] of the project proposer without independent verification... The evaluation process for both the underground mine alternative and the west pit backfill alternative results in elimination of those alternatives for economic reasons in violation of Minn. Stat. § 116D.04 (2013)...The underground mine alternative and the west pit backfill alternative should be evaluated with more than a screening level analysis, and the accuracy of information provided by the project proposer should be independently verified.	ALT01, ALT03
4853	The Purpose and Need Statement focuses on private economic objectives... By defining the “purpose and need of the project” narrowly, the SDEIS readily eliminates alternatives as not fulfilling the purpose and need of the project... Even the broader Co-lead Agencies’ Purpose and Need statement at SDEIS Section 1.3.2.1 allows economy to trump environment:.. By framing the Purpose and Need and related analysis in terms of production and markets, and excluding alternatives that might currently be unprofitable in a volatile minerals market, the evaluation is driven by today’s private economic considerations... The Purpose and Need statement and analysis should fully encompass long-term and watershed-wide environmental benefits and costs in addition to private economic considerations.	NEPA01
4854	Minn. R. 4410.2800 (2009) provides, in part, that the final EIS shall be determined adequate if it “addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with part 4410.2300, items G and H.” Id. The SDEIS fails to include and fully evaluate alternatives.	ALT20

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> The Nature Conservancy (42982)		
4855	The Purpose of NEPA and MEPA require that Financial Assurance be Considered at the EIS Stage and Not Await the Permit to Mine Decision...63. Thus, for the SDEIS to serve as an adequate disclosure and examination of the proposed alternative, it must provide a thorough documentation of the cost estimates underlying the financial assurance, a high degree of assurance that all contingencies that may occur during the perpetual treatment, replacement, and maintenance are fully covered by the proposed financial assurance, and a mechanism of financial assurance that will remain effective and fully payable in perpetuity...The final EIS should be supplemented to include a detailed description and dollar estimate of costs of each component of reclamation to be secured by financial assurance from PolyMet and an opportunity for public comment should be provided on this essential supplementary analysis.	FIN01, FIN05, FIN13
4856	To Fully Inform Decision-making and Public Comment, Financial Assurance Analysis in the EIS Must Include Failure Analysis and Account For Risks Associated with the Unprecedented Duration of Monitoring and Treatment... The NorthMet SDEIS includes a generic listing of adverse contingencies,...The final EIS should be supplemented to include an assessment of the risk and assign cost factors associated with the failure of proposed abatement and reclamation systems for the NorthMet project, as was done in the USEPA's Bristol Bay assessment.	FIN05, FIN11, FIN12
4857	The EIS should address the financial impact and need for assurance associated with additional risks and costs in light of the unprecedented duration of reclamation, monitoring and treatment. .. All the above factors indicate that even with an assumption that the MNDNR will properly perform its duty to assure adequate financial assurance, any current estimate of restoration and reclamation costs must take into account failure scenarios, technological progress, regulatory changes, and extreme weather events such as floods and tornados. The EIS must include analysis of these risks to ensure that they are adequately borne by PolyMet and any successor operators and not Minnesota residents and taxpayers.	FIN01, FIN05, FIN12, FIN13
4858	The final EIS should be supplemented to address the additional costs associated with the unprecedented duration of reclamation, monitoring and treatment required by the NorthMet project, such as facility obsolescence, and regulatory and technological changes.	FIN05, FIN13
4859	The final EIS should commit to a fully funded financial assurance mechanism, at least 90% of which is composed of a trust fund to be administered by a group of governmental agencies, representing state, federal and/or local government.	FIN08
4860	The final EIS should agree to the release of financial assurance obligations only upon all closure, reclamation and mitigation performance criteria being met.	FIN08
5920	On behalf of the Minnesota/North Dakota/ South Dakota Program of The Nature Conservancy, I request an extension to the public review and comment period for the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (SDEIS) for an additional 90 days beyond the current end date of March 13, 2014.	NEPA07
5921	The longer review and comment period is warranted by the length and complexity of this document. The quality of comments that the Conservancy and the public will be able to provide will improve with additional time.	NEPA07
17506	On behalf of the Minnesota/North Dakota/ South Dakota Program of The Nature Conservancy, I request an extension to the public review and comment period for the PolyMet NorthMet Supplemental Draft Environmental Impact Statement (SDEIS) for an additional 90 days ...The longer review and comment period is warranted by the length and complexity of this document.	NEPA07
<b>Sender Name (Submission ID)</b> Theo (43082)		
14990	Do not allow the copper mines in Minnesota. ... I worry about what it will be like when I am an adult, will the BWCAW still be the same? will I be able to go swimming and eat the fish I catch?	LU06
<b>Sender Name (Submission ID)</b> Theresa Gerber (33046)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Theresa Gerber (33046)		
14015	It is the DNR's job to protect Minnesota's environment and take care of our natural resources, and allowing mining that has the potential to pollute for hundreds of years is a direct contradiction of this.	PER04, WR195
14016	I do not understand how anyone, especially a government agency that is supposed to put public interest first, can think that a relatively small increase in jobs and economic output for twenty years outweighs the potential for catastrophe and pollution for hundreds of years.	SO01
14017	Minnesota is known for its clean lakes and rivers, but fresh water is not an infinite resource and we should not be actively working to jeopardize the local watershed and Lake Superior, which is what would happen if the PolyMet mine is approved.	WR195
14018	Even if there is some way that PolyMet could guarantee it can pay for clean-up of a catastrophe, Minnesota has only been a state for a little more than 150 years and it would be crazy to knowingly create a situation that leaves us cleaning up water pollution for twice as long as we have been a state.	FIN01
19836	How can the mining company guarantee that if something does go wrong, they can pay for cleaning water for 200-500 years?	FIN01
<b>Sender Name (Submission ID)</b> Theresa Johansen (10691)		
12195	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
12198	Please reject the SDEIS and the experiment in very long-term if not permanent pollution that the PolyMet sulfide mine plan would bring to Minnesota. This project would violate water quality standards for generations to come.	WR195
<b>Sender Name (Submission ID)</b> Theresa Nelson (43232)		
15816	I'm by no means rich, but choose to spend my money here in order to experience the BWCA as it is. BUT not if, I even think for a moment that the water is being contaminated, the animals lives are being compromised or the local economy doesn't value protecting this most incredible resource.	SO02
<b>Sender Name (Submission ID)</b> Theresa Rokusek (14955)		
280	How many [jobs] are guaranteed to US citizens?	SO06
<b>Sender Name (Submission ID)</b> Theresa Zaydel (30091)		
13860	serious concern for the health of the Great Lakes region of the United States and Canada.	WR111
<b>Sender Name (Submission ID)</b> Thomas A Leaf (40931)		
7551	We Minnesotans have before us a proposed project from an outside company which stands to obtain large economic gain...The benefits for Minnesotans are some construction jobs for a few years and a few mining jobs for a twenty year time period...We do not have an economy that is so destitute that we need to consider this project.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Thomas A Leaf (40931)		
13949	We will soon be left with an abandoned mine...and we have clean up and monitoring of the site for centuries...The amount of money to be set aside has been only vaguely defined...It is quite impossible to plan monitoring and clean up for several hundred years.	FIN05
13950	Recent water quality data regarding sulfate water contamination confirm original studies that suggest we have native wild rice and potentially many other species are very sensitive to increased sulfates in the water...We are contemplating the possibility of adding pollution to the largest freshwater lake in the world.	WR156
<b>Sender Name (Submission ID)</b> Thomas and Charlotte Meinz (39998)		
6317	The dollars earned by providing jobs for a number of people pales when you consider the damage to the environment and the potential cost of cleaning up the water and land that will result for MANY YEARS. The studies that say we could subsidize a number of people for as many years as they would make a living on jobs provided would be much fewer dollars spent by our taxpayers than what will be needed if and when the mining companies disappear from the scene. MINNESOTANS WILL BE LEFT HOLDING THE BAG AND OUR PRISTINE LAND AND WATER WILL BE RUINED.	SO01, WR037, WR115, WR195
13015	The dollars earned by providing jobs for a number of people pales when you consider the damage to the environment and the potential cost of cleaning up the water and land that will result for MANY YEARS.	SO01
13020	The studies that say we could subsidize a number of people for as many years as they would make a living on jobs provided would be much fewer dollars spent by our taxpayers than what will be needed if and when the mining companies disappear from the scene.	SO01
<b>Sender Name (Submission ID)</b> Thomas Aro (42514)		
15441	I was stunned to learn that the "Financial Assurances" being put forth are more platitude than substance. The gentleman explaining the matter said such assurances are statements and positions put forward by the company but one not completely vetted in the review and EIS decision making phase of the project. Underlying support for letters of credit, how trusts will be funded and what happens if the undertaking turns marginal or uneconomical at some future point seem to me to be critical concerns that should be met before the project moves on.	FIN08, FIN13
<b>Sender Name (Submission ID)</b> Thomas Bergum (54168)		
16067	Northern MN may be forever changed struggling with ground water pollution for hundreds of years.	WR195
<b>Sender Name (Submission ID)</b> Thomas Cahoy (45444)		
11397	PolyMet says waste water will need treatment for 500 yrs minimum. How much longer after that?	WR038
11398	Where are the contingency plans or financial guarantees in case of accident or emergency?	FIN05, FIN08
<b>Sender Name (Submission ID)</b> Thomas Donaghy (15304)		
458	The economy of northern Minnesota is now built on tourism, which is based on the natural beauty of the area. PolyMet would undermine that beauty -- and the economy that relies on it -- for centuries.	SO02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Thomas Donofrio (21724)		
9487	I believe the environmental review process has been sound and thorough. The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all state and federal regulations.	NEPA16
<b>Sender Name (Submission ID)</b> Thomas Gillach (42527)		
2440	People are our most important resource. I repeat, people are are most important resource. They need work to live and they need it now to support their families and to bring this area into the future. Polymet will help do this and the enviornment will remain one of their main concerns.	SO10
3799	[The Co-Leads] have put forth a very comperhensive enviornmental impact study report which addresses the many questions and concerns of the future, a future that no one can correctly predict over the next two hundred or five hundred years.	NEPA16
15536	Laws have been written in the past and nodoubt more will be written in the future regarding water and air protection. We have seen evidence in this area of industries working with these concerns and they have made and are making great strides to assure that these laws are followed. We must trust that they will be followed and if infringed upon, will be corrected under the watchful eye of those intrusted with this responsibility.	PER06, PER34
15538	[PolyMet has] been forthright in addressing the concerns of the environmentalists, have taken on the challenges of water purification, have develop a process of water osmossis which has proven to be very effective in removing sulfides.	WR190
<b>Sender Name (Submission ID)</b> Thomas Howes (11563)		
14340	Water treatment for hundreds of years in exchange for money to the local and state governments plus a few jobs is not a sustainable or intelligent decision. The life of this mine will create some economic activity and in return my home territory is tainted forever to benefit a few wealthy investors.	SO01
14340	Water treatment for hundreds of years in exchange for money to the local and state governments plus a few jobs is not a sustainable or intelligent decision. The life of this mine will create some economic activity and in return my home territory is tainted forever to benefit a few wealthy investors.	SO01
<b>Sender Name (Submission ID)</b> Thomas J Arneson (54638)		
18570	The EIS should include contingency planning based on failuremode and effect analysis or some other failure analysis methodology. This analysis should describe the likelihood and impact of failure at each step of extraction, transport, processing, and ongoing site treatment, giving remediation plans (with costs) for responding to each. The currentversion ofthe EIS, treating contingencies only in the most superficial way, if at all, presents an overly optimistic picture of the effectiveness and the cost of preventing pollution.	PD22
18574	The EIS needs to be revised to include analyses of bow long pollution mitigation will be needed. Failure to provide this information makes it almost impossible to assess the feasibility of providing pollution mitigation as long as it is necessary.	NEPA09
18576	The feasibility of ongoing treatment for hundreds of years is questionable, given societal changes and natural disasters that will no doubt occur over centuries. Lack of effective treatment over centuries will result in pollution. To strengthen credibility that centuries of effective treatment is feasible, the EIS should document examples of similar processes that have worked effectively for centuries.	WR023, WR129

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Thomas J Arneson (54638)		
18578	The EIS does not contain information on how it will be assured that financial resources will be available, provided by Polymet, successor companies, or partner companies, for whatever treatment is necessary to prevent pollution for centuries at the mining site and at the processing site. The EIS should contain this information. If the companies stop doing the necessary treatments for financial or any other reason, treatment processes are likely to be disrupted before state or federal taxpayers assume the costs. During this period of disruption pollution is likely to ensue.	FIN01, FIN10
18579	The EIS states estimated costs for pollution mitigation while the mine is operating, at the time it is closed, and annual costs thereafter. But the assumptions, rationale for the assumptions, and calculations to produce the estimates are not provided. The EIS needs to be revised to show this information.	FIN05
18581	Multiple copper/nickel ore mining projects reasonably close to the PolyMet site are now being pursued, and development of some of these sites is reasonably likely. ... Table 6.2-1 should include additional copper/nickel ore mining operations in exploration or development in the area.	CU02, CU04
18584	The potential problems associated with uranium products being found in the ore material or waste rock are not covered in the EIS. ... If Poly Met or its contractors have done sufficient testing to demonstrate uranium will not be a problem at the proposed Poly Met project site, this information should be detailed in the EIS.	HAZ03
18587	I do not support the proposed land swap because I believe it sets a bad precedent for development of additional copper/nickel mines in the area and because it is not fiscally responsible. ... To allow a swap based on an appraised value ignoring mining plans is giving Poly Met a large financial subsidy. I oppose a subsidy of this kind.	LAN03
<b>Sender Name (Submission ID)</b> Thomas King (39167)		
12277	We know with past experience of the iron mines that there will be accidents and spillage of toxic chemicals. Check out lake Vermillion for evidence. We can't risk this kind of exposure with sulfide mining!!!	WR023
<b>Sender Name (Submission ID)</b> Thomas Koehler (9306)		
96	There is no mention of mitigation of other heavy metals that will be released in the water effluent, in excess of current water quality standards.	WR027, WR128, WR130
97	The parent rock body will be fractured by blasting, and there is no mention of how to prevent ground water from entering these fractures and producing acidic drainage into the aquifer.	WR016
913	Past experience with mining companies has indicated to me that any entity engaged in sulfide mining will escape any responsibility, whether legal or financial, by simply dissolving or filing bankruptcy, as has happened in our past. In the case of a projected 200 year or 500 year liability, I am saying that all entities will escape ANY liability with the simple stroke of a pen. There is no provision whatever to assure and insure that any entity of any kind will actually be forced to exist and remain liable for all costs that will otherwise be externalized as has always happened in the past and to date.	FIN01
914	Why isn't any limestone placed with all sulfur-bearing rock to neutralize subsequent acid formation? Will any limestone be placed in the tailings basin? There is no mention of the location of the Poly-Met hydromet facility, where phase two nickel concentrate will be sent, nor any description of the chemical nature of that treatment and its wastes. Autoclaving of concentrate and oxidation under pressure is mentioned, but no description of the chemical nature of the solutions used. Limestone is apparently added to this spent solution, but what of the consequent sulfates? Pit linings are notoriously short-lived and leaky, as demonstrated by other pit linings.	PD34

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Thomas Koehler (9306)		
916	The foremost and greatest weakness and objection is the inability to hold any entity responsible for the proposed duration of this enterprise - by its own definition, up to 500 years!! Reserve Mining evaporated out from under its financial obligations in less than sixty years!	FIN01
<b>Sender Name (Submission ID)</b> Thomas La Point (13907)		
141	The SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
142	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream to Lake Superior.	AQ05
143	Four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Thomas Lambrecht (20229)		
1810	Copper-nickel mining will contribute to the local and state economy at a time when we really need the jobs and economic benefit.	SO10
<b>Sender Name (Submission ID)</b> Thomas Moen (54507)		
18774	Water is critical to our state as well as states around us, and this development in the midst of 3 watersheds is not one that should be undertaken. This area is unique, and cannot be replaced after the mining companies leave.	WR111, WR195
18776	I encourage the development of jobs that are sustainable for the area, and that go beyond the 20 years promised by Polymet.	SO10
<b>Sender Name (Submission ID)</b> Thomas Nelson (45805)		
16345	The technology is there to protect the water and provide much needed resources and provide good paying jobs.	WR190
16346	As a Superintendent of a wastewater treatment and water treatment facilities in the Great Lakes Water shed if we can keep Mercury out with limits as low as 1.8 ppt we can keep the effluent from the Polymet project clean.	MERC15
<b>Sender Name (Submission ID)</b> Thomas Normile (44203)		
11950	Do not pollute or kill our Lakes, Aquifers, Rivers and Swamps.	GEN01
<b>Sender Name (Submission ID)</b> Thomas S. Falkowski (14836)		
216	I am concerned that the official report does not clearly identify the costs associated with the ongoing monitoring of both the mining site and the plant site, as well as what may be required as potential remedies if monitoring identifies problems.	FIN05, FIN11
217	The significant lengths of monitoring would require a financial reserve that would likely exceed both the revenues of the state from the mining company and any economic stimulus of employees that would pay state or local taxes.	FIN05, FIN11

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Thomas S. Falkowski (14836)		
218	There should be adequate financial reserves that are both prepaid prior to initiation, and also accrued during the years of operation that account for all 500 years of MN tax payer exposure.	FIN01, FIN05, FIN08, FIN10
219	[Regarding affected water sources,] I did not see a clear statement as to the populations of the communities and the total number of people that could be affected for the duration of the exposure.	HU01
<b>Sender Name (Submission ID)</b> Thomas Scott (21247)		
14032	The inherent incalculable risks will extend for many generations to come, and these are simply not worth undertaking.	SO01
<b>Sender Name (Submission ID)</b> Thomas Wallace Morgan (57141)		
16837	Our water is too precious to gamble with.	WR195
<b>Sender Name (Submission ID)</b> Thuan Thai (54230)		
16800	[PolyMet] mining company drawing the [NorthMet mining area] map was not credible and was cut off of original map. The map was cut off so that the people look at the mine site and would think that the mine site would not affect other lakes, swamps or rivers. From that point of view, people would approve of the mining construction but the map was correct to the BWCA which is could affect to environment.	PD38
16801	The mine releases phosphate to the swamp which will react with water and form sulfuric acid and if the sulfuric acid goes to the BWCA and eventually will pollute those BWCA. I would really like to go to boundary water to visit and enjoy the nature. But if the mining begin the sulfuric acid would go to BWCA which could destroy the ecosystem. This is unacceptable to destroy the nature which and where we are living in.	WR111
<b>Sender Name (Submission ID)</b> Tierney Bartell (54164)		
16061	Do not allow another mine to ruin our beautiful landscape. I	LU04
16062	It is too much of a risk and will have a disastrous long term outcome if allowed. Money & greed are driving this mine and I oppose it.	SO01
<b>Sender Name (Submission ID)</b> Tim Gihring (15345)		
489	But as the environmental review makes clear, the proposed Polymet mine is not like the old ... mines. The costs are greater, the stakes much higher. ... The mine is for a few decades and the damage potentially forever.	PD27, WR115
<b>Sender Name (Submission ID)</b> Tim Grebner (10196)		
368	I think it unwise to jeopardize water supplies for 500 years for short term jobs.	SO01
369	How can we sacrifice the water quality for 500 years! Who will pay for the ongoing water treatment? The length of water treatment is longer than our nation has existed.	FIN01, WR035
<b>Sender Name (Submission ID)</b> Tim Iverson (44267)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Tim Iverson (44267)		
11957	So, we get 300 new jobs, in exchange for decades of inevitable cleanup of the water, soil, and probably air. That hardly seems like a good tradeoff.	SO01
11958	The original estimate was far less [of another mine], as I'm betting the same for the cost of environmental cleanup with Polymet.	FIN05
14877	the exposed rivers, Partridge and Embarrass eventually flow into the St Louis River, which flows into Lake Superior, which Duluth is located on. Lake Superior is now just getting her health back after years of dumping by other mines and Honeywell barrels. And now we are asked to trust Polymet?	WR111
<b>Sender Name (Submission ID)</b> Tim Johnson (42999)		
15272	I would like to encourage you to give more time for citizen input on the PolyMet mine...I have learned over the years [to] not rush things and as much as possible work for consensus.	NEPA07
<b>Sender Name (Submission ID)</b> Tim Karst (38647)		
11894	The jobs that will be created and the taxes that will be collected are needed to keep Minnesota an economic leader.	SO10
11895	The Minnesota DNR has the most stringent mine permitting process in the country and I have confidence that this mining can be done safely with no damage to the environment.	PER34
<b>Sender Name (Submission ID)</b> Tim Lundahl (15404)		
600	Water quality will be impacted for centuries and we have no experience in knowing how to deal with this for such an extended time.	PD03, WR035, WR038
602	It is folly to even suggest that the DNR or any other agency can develop a plan that will "guarantee" water treatment for centuries to come at no cost to the taxpayer.	FIN10
603	The relative few number of jobs this project would create and the fairly short life span of the mine do not justify the long term financial and environmental liabilities that this proposal would create for Minnesota's citizens.	SO01
1867	PolyMet mining proposal, however, has far more long range negative environmental impacts than iron mining ever has.	PD27
1891	The track record for similar mining operations in our country is filled with failures. These failures include serious water pollution, corporate bankruptcies, insufficient dollars for environmental remediation and mismanagement.	PD26
<b>Sender Name (Submission ID)</b> Tim Melby (11595)		
2255	My wife and I have been harvesting wild rice for the past 35 years in the area affected by sulfide discharge. My concern is that the PolyMet SDEIS will not preserve current environmental laws and enforcement will possibly be degraded.	WR154, WR156
2255	My wife and I have been harvesting wild rice for the past 35 years in the area affected by sulfide discharge. My concern is that the PolyMet SDEIS will not preserve current environmental laws and enforcement will possibly be degraded.	PD24, WR128

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tim Melby (11595)		
2256	If PolyMet is so concerned about meeting current standards of 10 milligrams per liter of sulfate, then why not offer to beat the standards and challenge the State of MN with the proof of a clean mine in order to allow for future sulfide mining projects.	WR147
2256	If PolyMet is so concerned about meeting current standards of 10 milligrams per liter of sulfate, then why not offer to beat the standards and challenge the State of MN with the proof of a clean mine in order to allow for future sulfide mining projects.	WR147
2257	United States treaties with the Lake Superior Band of Ojibwe need to be honored and acknowledged, including a seat at the table with enforcement rights.	CR01
2257	United States treaties with the Lake Superior Band of Ojibwe need to be honored and acknowledged, including a seat at the table with enforcement rights.	CR01
14232	I mention these locations because we are actively and intimately involved in the area that toxic sulfate mining will affect the clean water in our lakes streams, rivers and ground water.	WR115
14232	I mention these locations because we are actively and intimately involved in the area that toxic sulfate mining will affect the clean water in our lakes streams, rivers and ground water.	WR115
<b>Sender Name (Submission ID)</b> tim mikkelson (12156)		
1652	To think that the mining would produce millions of pounds of material that would have to be monitored and treated for many, many lifetimes ( and would most likely end up being the taxpayers responsibility, as with most mines) is TOTALLY UNACCEPTABLE.	FIN10, WR035
<b>Sender Name (Submission ID)</b> Tim Minotas (23726)		
13983	Enough is enough with dirty mining and energy practices that not only contributes to climate change, but damages many people's and species way of life and health.	WI04
13984	The Great Lakes and its surrounding systems are one of our most vital resources, we can't afford to degrade.	WILD02
<b>Sender Name (Submission ID)</b> Tim Peschman (38454)		
14467	In my experience, I have not seen ANY hard rock mining operations that have successfully provided treatment during and after their mining operations. The 30+ Superfund hard rock mining sites that the EPA has is testament to this.	PD26
14469	The various hard rock gold and precious metal mines, dating back to the middle 1800's have proven that our human nature is to make a profit irrespective of the environmental impacts.	SO01
14470	And [past mining projects] legacy is being borne on the backs of taxpayers, based upon ARRA funding, local bond issues, increased local water costs, etc.	FIN01, FIN10
14471	Why, I ask therefore, are the impacts to the Superior National Forest and/or the Boundary Waters Canoe area, if PolyMet is allowed to do their open pit mining, not of the same strategic value [as the Pebble mine, which would have been located near a strategic fishery]? Clearly, these were designated as strategic wilderness areas and in this evaluation, went through years of public and private scrutiny for this designation.	WR111

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tim Peschman (38454)		
14472	My point is that the mining industry is only recently working to start compliance with their discharges. Heretofore, it has been too easy for them to litigate for delays or claim insolvency to avoid their environmental responsibilities.	PER06
14473	I work with Reverse Osmosis systems all of the time and I can testify that they 1.) Require a significant amount of maintenance, 2.) Have a long track record of plugging from precipitation of inorganics and silicates on the membrane surface, and 3.) Are prone to bacterial fouling, particularly in bacterially active waters, such as will be developed at this site. Without some sort of additives (pH control, sequestrants, cleaning systems, etc.) which could impact the environment (I didn't see any discussion of this within the SEIS), they will fail. Without some form of redundancy, they are not reliable.	PD03
14474	The SEIS indicates that there will be no impact to water flow within the Boundary Waters - that all water flow will be to the St. Louis river watershed and ultimately to Lake Superior. Given the volume of water to be used within this facility and the wastewater discharge points, there will be considerable reversal of flows within the various rivers, changing the hydrology of the area.	WR080, WR081
14475	there is more than ample evidence in our present environment to show that hard sulfide-bearing rock mines can not and do not comply with their environmental responsibilities. These responsibilities are passed on to future tax-paying generations by the Mining Companies, as they undergo bankruptcy or name change to protect or eliminate their liabilities.	SO01
<b>Sender Name (Submission ID)</b> Tim Wallace (51599)		
13191	If this mining proposal is allowed to go forward it will only be the beginning for how do you stop future proposal when this one gets approved. Impacts are cumulative as well as specific for each mine regardless if it is surface or underground.	CU04
13194	I own a nice piece of property on the St. Louis River and I will be directly affected by the discharge of contaminants from the PolyMet Mine for the rest of my life if it is allowed. PolyMet has a short life, the rivers and water are needed forever by all life in and near the river. This project must be measured by the standard of short term vs. long term. The decision will be easy and it will be NO if this metric is used.	LU06, WR115
13913	Impacts are cumulative as well as specific for each mine regardless if it is surface or underground.	CU11
13914	PolyMet has a short life, the rivers and water are needed forever by all life in and near the river. This project must be measured by the standard of short term vs. long term.	SO06, WR195
<b>Sender Name (Submission ID)</b> timlndbrg@yahoo.com (46090)		
10784	Lets get this done & try to help the folks in northern mn with gainful employment, help our ayates economy lord knows it wouldnt hurt, & help mn be a bigger player in the global market place.	SO10
<b>Sender Name (Submission ID)</b> Timm Frankowski (9749)		
289	Accurate groundwater rates are crucial to predict pollution and seepage of waste into the Partridge River. The SDEIS must be re-modeled to make it accurate!	WR003, WR086, WR091
290	The long term treatment of waste water at the mine sites and processing plant of possibly hundreds of years and the cost of which that would be put on the backs of future MN generations is outrageous!	PD25

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Timm Frankowski (9749)		
291	The jobs that Polymet is proposing are far outweighed by the environmental cost of the cleanup that will have to take place over a very long time.	SO01
1372	Polymet's SDEIS water model is seriously flawed. The most recent MN DNR report shows the actual rate of groundwater base flow is 200-300% higher than the rate used in Polymets SDEIS. Accurate groundwater rates are crucial to predict pollution and seepage of waste into the Partridge River. The SDEIS must be re-modeled to make it accurate!	WR003
1376	Lake Superior is an international gem bordered by exceptional lands in Northeast Minnesota. The Lake is under siege in so many ways. Water compacts between the Great Lake States and Canadian Provinces in the Great Lake watersheds are trying to protect these natural wonders. The BWCA is Minnesota's most pristine wilderness area. Why would we want to risk this truly special area to the degradation that this type of mining would certainly impose?	WR111
1377	Please extend the comment period	NEPA07
<b>Sender Name (Submission ID)</b> Timothy G Lerick (54646)		
17999	I believe the people involved have gone above and beyond the measures required to gain the necessary permission from the regulation authorities. In my opinion the project is 35 years overdue.	NEPA16
<b>Sender Name (Submission ID)</b> Timothy Larson (43967)		
7055	The SDEIS briefly claims that that mercury will not leach into the Partridge River at the site of mines and waste rock sites, but the assurances are contradicted by admissions that metals could be affected by groundwater flow--which has not been adequately assessed.	WR167
7058	Owners of mineral rights do not have the right to pollute our land, air, and waters--directly or indirectly.	SO02
7059	The issue of mercury is not adequately described in the SDEIS.	MERC01
<b>Sender Name (Submission ID)</b> Todd Burras (38834)		
5073	... we oppose any mining project, including the one being proposed, that threatens the water quality of the Kawishiwi watershed and the Boundary Waters Canoe Area Wilderness.	WILD02
<b>Sender Name (Submission ID)</b> Todd Ernest Barkus (57240)		
17342	I think the PolyMet operation, and all similar proposed operations do not adequately address the long term and short term impacts of the pollution that will be produced. I think these operations should not be allowed to proceed. We cannot build an economy on processes that destroy the environment.	SO01
<b>Sender Name (Submission ID)</b> Todd Lyden (7399)		
746	I am confident that the Supplemental Draft Environmental Impact Statement (SDEIS) gives regulators the information they need to issue PolyMet Mining permits to operate while protecting natural resources.	NEPA16

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Todd Lyden (7399)		
748	The PolyMet project has been designed to minimize environmental impacts. It reuses an existing site (the old LTV mining site) and existing infrastructure, minimizes the disturbance of wetlands, and utilizes multiple safeguards to protect the environment.	PD28
749	PolyMet will also have dramatic, positive socioeconomic impacts to a region that has been built on mining.	SO06
751	An added benefit is the land exchange with the U.S. Forest Service will open up new public recreational opportunities for all Minnesotans.	LU01
<b>Sender Name (Submission ID)</b> TODD M (45408)		
15621	*PolyMet will contribute to the local and state economy at a time when we really need the jobs and economic benefit.*I'm proud that my investment dollars are being spent here in Minnesota by Minnesotans. Our economy needs these jobs.	SO10
15622	*PolyMet will be a domestic supply of critical metals needed in medical applications, electricity, catalytic converters, cell phones, computers and other essential products.	PD28
<b>Sender Name (Submission ID)</b> Todd McGillivray (10721)		
588	The SDEIS is an amazing document. Comprehensive, informative, complete. It's time to move on to the Permitting process.	NEPA16
1483	One comment about the Public meeting system. I don't believe people should be allowed to speak when their presentation is full of lies and inaccuracies. Public comment at the meetings would be much more informative and useful if one or all of the lead agencies would have time to respond to the speakers presentation with factual information. The system that was used was very unfair to the PolyMet project.	NEPA11
<b>Sender Name (Submission ID)</b> Tolvo Sober (54157)		
16049	Poly Met's proposed copper-nickel mine has the potential to pollute our environment for hundreds of years, far beyond the life of the company.	FIN01
<b>Sender Name (Submission ID)</b> Tom (20080)		
1727	Minnesota has some of the most protective environmental regulations in the nation, and the SDEIS outlines how Polymet's mine and plant operations will meet these standards. I believe the plans for the lined stockpile areas, in-pit subaqueous waste disposal, and treatment of tailings pond effluent provide key methods for reduction of potential impacts of waste rock and wastes generated by the project. In addition, the land swap provides for mitigation of biologic and wetlands impacts	PER34
1728	Financial assurance laws in Minnesota outline standards that will ensure Polymet will honor its responsibility for long-term treatment and reclamation of the site.	FIN16, FIN17
1729	The Polymet project will provide valuable jobs on the iron range, where metal mining has been conducted in a safe, sustainable manner for over a century. I believe that the Polymet Mine will be an asset to the state and the country, and can be operated with an eye toward environmental stewardship.	SO10
2331	How diligent will the MPCA/DNR and all the other public agencies be if standards aren't kept or met?	PER06

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tom (20080)		
2331	How diligent will the MPCA/DNR and all the other public agencies be if standards aren't kept or met?	PER06
2332	Is there enough money and procedures in place to ensure a long lasting healthy environment during and after the mine goes away?	FIN05
2332	Is there enough money and procedures in place to ensure a long lasting healthy environment during and after the mine goes away?	FIN05
2333	Talking with the MPCA, they stated, "No one has really raised the question regarding – what happens if the 20 yr. treatment plant (reverse osmosis process) breaks down for a lengthy period of time?"An employee felt – "It would be shifted to another location to clean the water, – or hold the water until the plant is fixed. – But she smiled – w/ the – it would be a problem!	WR157, WR190
2333	Talking with the MPCA, they stated, "No one has really raised the question regarding – what happens if the 20 yr. treatment plant (reverse osmosis process) breaks down for a lengthy period of time?"An employee felt – "It would be shifted to another location to clean the water, – or hold the water until the plant is fixed. – But she smiled – w/ the – it would be a problem!	PD24, WR128
2334	How do you feel it would be dealt w/ if terrorists picked this as a great target? – With all the protection available for water treatment plants – what type of security will you require of PolyMet	PD22
2334	How do you feel it would be dealt w/ if terrorists picked this as a great target? – With all the protection available for water treatment plants – what type of security will you require of PolyMet	PD22
15011	In addition, the land swap provides for mitigation of biologic and wetlands impacts.	WET15
<b>Sender Name (Submission ID)</b> Tom and Dana Vogen (43570)		
8318	I believe it is unconscionable to create pollution that would need to be treated for centuries if it can even be done effectively.	PD01
15492	If we make decisions based primarily upon jobs and money, the destruction of the earth will continue unabated.	SO01
<b>Sender Name (Submission ID)</b> Tom and Julayne Johnson (45248)		
9096	If they cannot 100% guarantee that there will be no environmental damage and especially to our water supplies and Lake Superior, then mining should not be and never be allowed.	WR110, WR111
<b>Sender Name (Submission ID)</b> Tom and Mary Schutz (44295)		
11850	I support the MEPA and the Minnesota Environmental Rights Act (MERA) prohibit state agencies from permitting projects that will cause pollution, impairment, or destruction of the environment.	PER35
11851	This is just another get rich quick idea that will leave pollution expense that they, the company, will not be around to clean up and pay for the pollution expense later. We the people, our country and the planet earth does not need this kind of waste and havoc to our land, water and environment.	FIN01
<b>Sender Name (Submission ID)</b> Tom Anderson and Kathryn Hagen (36387)		

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Tom Anderson and Kathryn Hagen (36387)		
3787	Revise the SDEIS to clearly state how long the need for active water treatment (reverse osmosis or other mechanical treatment) is predicted, according to the models used in the SDEIS.	WR036
3788	Extend the water model timeline as far as needed to show when all pollutants would meet applicable water quality standards and provide the public with a clear statement of the best available prediction for the time frame of mechanical water treatment.	WR036
3790	Revise the SDEIS to address Minnesota Rules 6132.3200 and clarify how the post-closure activities described in the mine plan are consistent with the mandate that the closed mine site be "maintenance free."	PER04
<b>Sender Name (Submission ID)</b> Tom Anderson (7145)		
476	Three hundred some jobs for twenty years.... For the trade off of polluted sulphite contaminated water that will possibly need to be treated for up to four to five hundred years!!!???	WR195
478	Despite the "best" safeguards industrial accidents happen all the time. Spills happen. No matter how careful companies say they can and will be, there continue to be spills and accidents.	PD22
480	Is one of the states most precious resources worth tainting and polluting? Since every living thing cannot survive without water, just how much pollution is acceptable for the entire ecosystem???	WR115
<b>Sender Name (Submission ID)</b> Tom Anzelc (54815)		
18979	I believe PolyMet needs to put money up front in the event of environmental impacts or they declare bankruptcy.	FIN01
<b>Sender Name (Submission ID)</b> Tom Bittinger (21635)		
14222	I would also like to express my belief that short public comment period on the Supplemental Draft Environmental Impact Statement (SDEIS), as well as the timing of the limited public meetings, certainly gave the appearance that there wasn't any real interest in what the public thinks about this issue and that a decision has already been made. Having such a short and limited opportunity for public comment on this long, confusing, contradictory and misleading statement was unfair.	NEPA10
14223	The negative environmental impacts that result from these mines are more than common, they are almost inevitable.	CU11
<b>Sender Name (Submission ID)</b> Tom Carious (18162)		
13315	...those of us that are concerned with reducing our carbon footprint specifically rely on copper for our wind turbines, for the solar panels in the parking ramp across the street, for the electric car charging stations in the parking ramp, and the power of the light-rail trains that will open this summer in St. Paul. In fact, we in the US are among the world's leading consumers of copper. We consume significantly more than we produce or can recycle.	NEPA05
13317	if it's a given that we're going to continue to use copper...I believe that we here in Minnesota and the United States are in the best position to mine these metals. Better than any of the existing mines in any of the other countries that produce them. We have the strictest environmental regulations to protect our water; the strongest unions to ensure worker safety and good wages; we have public agencies full of technical experts controlled by democratic processes that value citizen input.	NEPA05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tom Casey (42960)		
7596	Sulfate standards have not yet been established by the Minnesota Pollution Control Agency.	PER10, WR152
14981	The water flow modeling is incorrect.	WR052, WR091, WR105
<b>Sender Name (Submission ID)</b> Tom Clarke (57954)		
19843	The threat to air and water especially the St. Louis River watershed & Lake Superior is too great.	GEN01
<b>Sender Name (Submission ID)</b> Tom Conrad (11545)		
2499	Is there enough monitoring in place to ensure we don't get to an unmanageable situation. AND who pays for the economic impact of it not working – loss values on home, property people quite using an area, etc....	FIN01, FIN11
2499	Is there enough monitoring in place to ensure we don't get to an unmanageable situation. AND who pays for the economic impact of it not working – loss values on home, property people quite using an area, etc....	WR044, WR045, WR047, WR048
7467	What happens if the mine opens AND it doesn't work. Is there enough monitoring in place to ensure we don't get to an unmanageable situation. AND who pays for the economic impact of it not working...	SO04
7467	What happens if the mine opens AND it doesn't work. Is there enough monitoring in place to ensure we don't get to an unmanageable situation. AND who pays for the economic impact of it not working...	SO04
<b>Sender Name (Submission ID)</b> Tom Diener (44187)		
11881	Taking a historically dirty industry and operating it close to a nearly pristine wilderness area seems absurd.	WILD02
11882	If I could be assured that there is adequate protection in place I could support the plan but as I understand it, the level of funding for protection of the environment will be not be determined until after the plan is approved. It feels like a backward approach. Funding for unforeseen problems needs to be addressed now.	FIN01
11883	Enforcement of regulations safeguarding the environment including water quality is an important consideration. Who will be the enforcement agency, several hundred years from now, to deal with harmful tailings runoff if they occur?	PER06
<b>Sender Name (Submission ID)</b> TOM DIMOND (43109)		
10153	If the US Forest Service does agree to the swap there will be thousands of acres of wetlands lost or degraded within the boundaries of the National Forest. This proposal does not call for the restoration of wetlands that have been lost. The US Forest Service should not support a proposal that causes a net loss and degradation of existing wetlands.	LAN03
10155	The modeling for water flow and assumption that 99% of the flowage and seepage will be treated lacks scientific data to support these claims. Without accurate water flow and capture rates evaluation is impossible.	WR021
10156	The plan to limit pollution depends on containment walls, pipes, pumps, and geo membrane. The SDEIS lacks adequate information on how these structures and systems will stay in place and operational for 500 years.	PD07, PD15

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> TOM DIMOND (43109)		
11456	The negative impacts to our State greatly outlast the short term benefits. The SDEIS does not include the full economic picture. Tourism is a major employer in Minnesota. Attracting and retaining businesses in Minnesota is highly dependent on the quality of life and the natural environment. Degradation of the environment and potential financial liabilities from 500 years of cleanup could cause job losses that greatly exceed any temporary gains.	SO01
11623	The Cumulative Effect or Cumulative Impact [to wetlands, wildlife, vegetation, and water resources] has not been adequately considered.	VEG08, WET24
11626	PolyMet proposes swapping privately owned lands in the Superior National Forest for the 6,650 acres of federally protected public land. This proposal is contrary to protection of the wetlands and natural resources within the boundaries designated.	LAN06
11631	Estimates have placed the pollution cleanup monitoring and maintenance costs at \$3.5 million to \$6.5 million annually. Cleanup is projected to take 500 years.	FIN01, FIN05
11636	The State needs detailed and verifiable information to protect the taxpayers and environment because the State is the only party that is likely to be here 500 years from now. A miscalculation by the State could create a taxpayer financial liability that risks the jobs and well being of many Minnesotans.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Tom Drill (6337)		
1179	This area is an economic wasteland without this project. This project will transform the area into a vibrant and sustainable economy with jobs and services for over 100 years, possibly 200 years.	SO10
1277	Polymet has mitigated the problems in the watershed where they operate.	PD28
<b>Sender Name (Submission ID)</b> Tom Ehlinger (21326)		
945	Water - fresh water --(...) once it is contaminated, it will take generations upon generations to gradually clear up	WR115
14038	But the idea of putting our fresh water at risk for hundreds, if not thousands of years, for at most several decades of jobs, is utterly astounding.	SO01
<b>Sender Name (Submission ID)</b> Tom Fiero (38703)		
9971	Polymet's modeling for contamination and mitigation stop at year 200 for the mine site, and year 500 for the plant site--ignoring the fact that contamination will continue after these end dates. Will the state of MN and its taxpayers then assume the burden of continuing the necessary mitigation actions?...Polymet must guarantee adequate permanent funding for pollution mitigation actions....	FIN10
9973	Furthermore, the SDEIS modeling of groundwater movement...uses a Partridge River estimated baseflow of 0.51 cfs, which is not realistic. Actual measurements east of the mine site establish a baseflow that is several times higher. ... SDEIS predictions for the amount of sulfates and other pollutants entering the river are probably low.	WR003, WR091, WR149
11990	Significant quantitative errors in the SDEIS need to be corrected, and the corrected document should then be subjected to further review.	NEPA15
<b>Sender Name (Submission ID)</b> Tom Garneau (14788)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tom Garneau (14788)		
1754	The PolyMet mine and the exchange of public lands to allow an open-pit sulfide mine and mine wastes on Superior National Forest lands are inconsistent with federal law, public interest and fiduciary responsibilities to tribes.	LAN02, LAN05
1755	The Land Exchange serves only the private interest of a foreign corporation, not the public interest.	LAN01
1756	The Land Exchange won't unify ownership of federal lands. Nearly all of the lands in the exchange have split mineral rights and no legal barrier to surface mining.	LAN04
1757	The Land Exchange results in an unacceptable net loss of high quality natural resources from federal public lands. This includes a net loss of 6,026 acres of areas with high biodiversity; 2,030 acres of mature forest – replaced by 2,000 acres of immature forest; 1,400 acres of floodplains and losses of 11 endangered or threatened species.	VEG01, VEG02, VEG03
1758	The PolyMet sulfide mine would reduce lynx habitat by two square miles, kill individual lynx, and impact 2 out of 13 remaining small corridors for wildlife to travel across the Arrowhead region. The PolyMet sulfide mine plan would also destroy 2,775 acres of habitat for moose, a species critical to tribes, the population of which dropped precipitously by 35% from 2012 to 2013. Yet, the SDEIS contains no analysis of impacts on moose from the PolyMet project.	WI01, WI02, WI03
1759	The SDEIS' analysis of harm to resources that are important for tribes relies on implausible assumptions. The SDEIS underestimates the hundreds of years of water pollution from the PolyMet sulfide mine and assumes away impacts on the St. Louis River and tribal resources.	CR01
1760	Whether in discussing the PolyMet sulfide mine or the proposed exchange of lands ceded to the federal government by the tribes, the SDEIS disregards the federal government's fiduciary responsibility to protect tribal rights to hunt, fish and gather plants, including wild rice.	CR01
1761	the PolyMet Land Exchange ...[is] inconsistent with the requirements of federal laws requiring that exchange of public lands be in the public interest and for fair value.	LAN03
1762	the PolyMet project [will have]... cumulative and significant adverse impacts on clean water, wild rice, healthy aquatic systems and mercury contamination of fish	MERC02, WR156
1763	the PolyMet project and Land Exchange [is]... inconsistent with fiduciary obligations owed by the United States government under treaties with Indian tribes.	CR01
1764	The SDEIS fails to assess costs of replacing functions lost due to destruction of mature forests, floodplains and high value wetlands.	VEG03
<b>Sender Name (Submission ID)</b> Tom Graham (36537)		
14268	[The proposed mine] is extremely bad for the wildlife and water creatures.	WI01
14269	I don't think [the proposed mine is] in the best interest of the area or for the people living there and then the people using the boundary waters canoe area.	WILD02
<b>Sender Name (Submission ID)</b> Tom Howell (19875)		
9349	Wild-rice farming will be endangered. That will affect those who depend on those crops, as well as their customers.	VEG04

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Tom Howell (19875)

9350 If fish advisories already exist for waters of the area, there should be vigorous efforts to reduce pollution rather than support for projects that will make things worse. AQ11

**Sender Name (Submission ID)**    Tom Jahnke (47214)

8807 I ... have never witnessed a successful recovery of natural resources following any kind of mining operation...The scar upon the landscape never heals. In my home county of Wright, there are at least 40 old gravel mines that have never been "healed" after the minerals were removed. PD26

8808 Statements to protect water have been misleading in all instances. WR189

8810 There best be a method by which those who operate the mines can safely protect the environment and afford to pay all expenses to recover the lost resources "up front"! FIN01

**Sender Name (Submission ID)**    Tom Kapsner (11576)

14187 Mining has made our area more successful than all businesses combined. Minnesota has lost most of 3M, IBM, Control Data and Burlington Northern due to unfriendly tax situations. What better business offers the opportunity to create jobs, pay taxes for communities, cities, counties and the state. Helping to provide better educational opportunities, repair roads, help environmental programs with funding. Literally 10's of thousands of jobs and millions in taxes. Let's work together to make this opportunity a reality. SO10

14187 Mining has made our area more successful than all businesses combined. Minnesota has lost most of 3M, IBM, Control Data and Burlington Northern due to unfriendly tax situations. What better business offers the opportunity to create jobs, pay taxes for communities, cities, counties and the state. Helping to provide better educational opportunities, repair roads, help environmental programs with funding. Literally 10's of thousands of jobs and millions in taxes. Let's work together to make this opportunity a reality. SO10

**Sender Name (Submission ID)**    Tom King (16357)

1524 I don't believe we have the technology to safely do this kind of mining at this time. PD32

2028 Also we do not need to tap into these resources and can save them for a later time when the need will be greater and the technology more NEPA03

**Sender Name (Submission ID)**    Tom Kolodzinski (18295)

12480 My concern is that the project has not looked enough at the impact on White Water Lake. In the small bay, by the diversion works, there is a potential drop of up to 12 feet of water in that small bay, when pumping into Colby, in the initial stages. WR140

12482 As a homeowner in that area, especially if it is during drought time, [a potential drop of up to 12 feet of water in the White Water Lake] ruins our opportunities or that impacts greatly, severely our opportunities in enjoying the water and what we built. LU06

12483 The mine is certainly, with that kind of money, the mining company, 600 million, isn't going to want to see damage. And those that do not support the mine have not shown evidence that this model will cause the damage. SO10

**Sender Name (Submission ID)**    Tom Koshiol (4734)

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Tom Koshiol (4734)		
1883	[I have] great concerns about the known water quality issues associated with the proposal ... There does not appear to be a concrete water protection/treatment plan in place	WR035
1884	It's a ridiculous compromise to the 33,000-plus tourism jobs already in place, and that presently sustain many communities in the area.	SO02
1886	The dangers associated with acid mining are astronomically larger and longer lasting than the iron and taconite mines, and the industry's track record is dismal at best	PD27
1887	These are very short-term jobs for a very low number of families, with the vast majority of mining profits leaving not just our state, but our country.	SO06
<b>Sender Name (Submission ID)</b> Tom Kranz (47068)		
11193	This pristine wilderness area has clean water and healthy forests and it is in everyone's interests for the BWCAW to remain unspoiled and unpolluted. The YMCA is aware of proposals to mine sulfide ore in the watershed of the BWCAW.	WILD02
11196	In considering the permitting of any proposed sulfide mining operations, we urge decision makers to be certain that the following clean water and environmental protection principles can be guaranteed:1. BWCAW waters and nearby lakes and rivers remain safe and clean2. Strong safeguards are in place in the event anything goes wrong3. Mining companies must leave the site maintenance free (in accordance with existing MN mining rules).	PER06
<b>Sender Name (Submission ID)</b> Tom McMullen (57719)		
19366	The process to approve the PolyMet Mining project has been dragged out long enough...the DNR has done an adequate job of holding the mining companies responsible, they have done their due-diligence, let's move forward.	PER20
19367	This is a valuable project for the state of MN, we have already lost enough jobs (tax base..) from our state.	SO10
<b>Sender Name (Submission ID)</b> Tom Neiman (43798)		
11814	Satisfying short-term business opportunities does not serve the long-term best interests of Minnesota/the upper Midwest or its people/land/animals/agriculture.	SO01
<b>Sender Name (Submission ID)</b> Tom Obst (42709)		
14323	Let us look for markets and products before we dig holes and lose the opportunity for turning out other items in the momentum that occurs during the mining and refining process. Without a plan we end up with leeching piles of gravel.	NEPA03
<b>Sender Name (Submission ID)</b> tom peacock (23487)		
9953	The value of profits cannot, by any rational measure, begin to compare to their value.	FIN10
<b>Sender Name (Submission ID)</b> Tom Reinke (41553)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tom Reinke (41553)		
9333	The model used to calculate the alleged economic benefits of the mine does not take into account the costs to the environment; the displacement of other economic activity, including among other things tribal rights to hunt, fish, and gather under the 1854 Treaty; the infrastructure, government, and social service costs resulting from the mining; and the consequences of the unpredictable influx and outflow of mine employees.	SO04
9334	PolyMet admits that water pollution by sulfuric acid and heavy metals will last for at least 500 years. Annually, 11 million gallons of polluted seepage from the tailings basin will enter groundwater without being treated [and] 5 million gallons of polluted seepage from the mine site will enter groundwater without being treated	WR070
9335	The computer model used by PolyMet may understate the actual pollution impact, because it has been shown to be inaccurate in representing current conditions for water quality around the mine site.	WR044, WR049, WR149, WR172, WR173, WR174
14300	What would be the costs for public infrastructure, lost opportunities to engage in other economic activities incompatible with mining, depressed real estate values, lost recreational opportunities, social upheaval, and perpetual clean-up that the public would be required to bear?	FIN05
14301	Not all of the polluted water will be captured for treatment	PD03, WR017, WR018, WR070
14302	Annually, 11 million gallons of polluted seepage from the tailings basin will enter groundwater without being treated.	PD04, WR070, WR117
14303	Annually, 5 million gallons of polluted seepage from the mine site will enter groundwater without being treated.	PD04, WR070
14304	The SDEIS fails to adequately assess the long-term impacts of the pollution resulting from the release of this untreated water.	WR070
<b>Sender Name (Submission ID)</b> Tom Roth (50003)		
12986	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN10
<b>Sender Name (Submission ID)</b> Tom Rukavina (44812)		
7282	It makes economic and environmental sense to locate this Northmet mine in the Hoyt Lakes/ Babbitt area. The towns that will house the workers are already there and are capable of accomodating the influx of workers needed to build and operate the mine.	SO10
7285	By using all the old course and fine crushers, concentrator, power lines and sub-stations, railroads, haul roads etc, the NorthMet project will save the environment by not having to mine for the metals that built this minesite the first time around.	PD28
7287	The human race and the citizens of the USA need the resources that will be mined at the Northmet site.	NEPA05
7288	In order for the human race to move away from the fosil fuels that cause global warming, we need the copper and nickel and platinum, palladium etc that will be mined at this site.	NEPA05
7292	Modern technology and modern regulations will insure that this mine will be one of the most environmentally sensitive mines in the world.	PER34
7293	We know that here in the USA, you regulators will make sure that we put all the safeguards in place to make this mine the safest in the world.	PER34

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Tom Rukavina (44812)		
7296	The experts at the Natural Resources and Research Institute... have indicated that the reverse osmosis process proposed by Polymet to treat their waste water will work and not pose a threat to our area.	WR190
7300	We need to mine the resources we all use in this country, not export our desires for these metals to another place where the environment will be abused.	NEPA05
13431	We even have the environmental regulations to make this mine one of the showcase mines in the world.... Right here, you can have good union mining jobs in the United States of America.	SO10
16438	In fact, many of the communities on the Range get their drinking water from the old natural iron ore pits. The sulfides in those pits has not turned to sulfates.	WR190
16439	People in the Eveleth/Virginia/Gilbert/Mt.Iron area live under the shadows of three different mines operating near their communities and they live healthy long lives. The U of Mn has completed a 5 year/ 5 million dollar study on mesothelioma and found our air is cleaner than the air in downtown Minneapolis. We have not polluted our environment.	HU08
<b>Sender Name (Submission ID)</b> Tom Steigauf (4874)		
1921	This type of mining; often called sulfide or acid mining has never been conducted in a way that preserved the natural landscape, habitat, or wildlife in the adjacent areas.	PD26
1922	The PolyMet mine will create jobs but how many and for how long? ... The fact is a relatively small number of jobs will be created and most of the money will leave the state.	SO06
1923	MN will be left with the environmental mess.	WR115
1924	It would be far better to develop tourism and create jobs around tourism. These would be long-term jobs that would continue on for generations.	SO02
<b>Sender Name (Submission ID)</b> Tom Thompson (18939)		
14731	Please extend the comment period for the Polymet Northmet Supplemental Draft Environmental Impact Statement from 90 days to 180.	NEPA07
<b>Sender Name (Submission ID)</b> Tom Welch (42565)		
17064	I trust the science and my neighbors and friends to protect our land and way of life. We need jobs badly but not at the expense of our Land and Water. Many millions of dollars have been spent on researching this project and the time is now to start mining the resources we have been blessed with.	SO01
<b>Sender Name (Submission ID)</b> Tom Witt (7037)		
452	...strip mining brings with it a host of environmental damages that are not worth the number of jobs that PolyMet promises: Danger to water quality Discharge of sulfates Harm to wildlife Destruction of wetlandsLet's not pollute it for the sake of some jobs, but rather let's do the harder work of finding more jobs that don't have such a harmful effect on our environment.	WET24, WI04

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Tom Wright (42567)		
17071	We do not live in the era of the 1960, 70, 80's we have governing agencies that we have to entrust that will help guide polymet as a company to comply with all standards.	PER34
<b>Sender Name (Submission ID)</b> Toni Watt (18238)		
13608	And I am a proponent of no mining allowed in the Boundary Waters. I really don't think it's safe, and I don't think they can guarantee that the water there will not be polluted.	WR111, WR195
13609	I don't think it's a good investment to look for 20 years worth of jobs, maybe, and 500 years worth of pollution, you know, and there's -- and the mining companies do not have a good track record,	SO01
<b>Sender Name (Submission ID)</b> Tony Jordan (9845)		
312	We should wait for technology to be developed to offer the possibility of mining them without the accompanying destruction that future generations will pay for.	PD32
1397	I am in favor of an additional user fee for the BWCA that would be shared with the residents of the area to compensate for their not getting the 300 some jobs that come with the destruction of the area.	SO06
<b>Sender Name (Submission ID)</b> Tony Nelson (10266)		
385	Are the mine owners willing to put the money up front to cover the entire cost for this cleanup? We must not get caught in a situation where the owners file bankruptcy after the mine is played out and the citizens are stuck with the bill.	FIN01
<b>Sender Name (Submission ID)</b> Tony Vavricka (9)		
32	The press release put out by the DNR forgets to mention the 500 years of clean up[...]who gets to pay for this[?]	FIN01
<b>Sender Name (Submission ID)</b> Tonya Kjerland (18269)		
13889	And I would like to state that in order to determine what a rice water is, the state should consider simply the presence of wild rice. Looking at historic data, such as it is, is very difficult at this time since we have not yet collected enough density data to determine how wild rice populations change over time.	WR154
13890	I would also like to say as a native person that the wild rice is more than just a plant. It is a sacred medicine. And that this is not just for the native people, it is for everyone.	CR01
<b>Sender Name (Submission ID)</b> Town of Fayal (54716)		
18499	the metals that Poly Met will mine are essential for daily life-copper, nickel, cobalt, platinum, palladium and gold-found in countless products, including cell phones, computers, joint replacements, medical treatments and devices, wind hlrbins and catalytic converters;	SO10
18500	the combination of strict Minnesota regulations and Poly Met's commitment to mining in a way that protects the environment will serve as a global template for responsible, ethical and successful mining practices;	PER34

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Town of Fayal (54716)		
18502	the proposed mining and processing operation will create 360 direct jobs and over 600 indirect jobs in St. Louis County alone; and WHEREAS, it is anticipated that the PolyMet Mining project will require 2 million hours of labor during its construction phase; and WHEREAS, PolyMet Mining will contribute millions of dollars to local cities, school districts and the State through net proceeds taxes, occupation taxes, and sales tax; and	SO10
<b>Sender Name (Submission ID)</b> Tracy Alfson (16995)		
11032	The SDEIS must be redone to include a specific and reasonable plan for financial assurance of treatment for hundreds of years and to ensure that taxpayers won't end up paying for clean-up if the PolyMet mine or plant site becomes a Superfund site.	FIN01, FIN10
<b>Sender Name (Submission ID)</b> Tracy Bauman (16590)		
13923	The PolyMet plan is not going to be applicable while maintaining the lakes and rivers to the same standards we have for so many years. It would be a total waste of a beautiful natural resource that can potentially kill our children with mercury pollution and ruin our fish not to mention the moose population which is already dropping more and more every year.	MERC01
13924	[The NorthMet Project could] potentially kill our children with mercury pollution and ruin our fish not to mention the moose population which is already dropping more and more every year.	HU03
<b>Sender Name (Submission ID)</b> Tracy Fredin (42464)		
6804	It does not provide enough economic benefit for the cost to our quality of life. There are other, more economically effective paths to follow.	SO02
<b>Sender Name (Submission ID)</b> Travis Barnes (54172)		
16388	The mine is a bad idea. It will cause a lot of pollution and kill a lot of wildlife.	WI01, WI04
16389	You could mine somewhere not important like Canada.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> Travis Durkin (20017)		
1657	I am against the new mine. I live in Ely and I am very concerned about our watersheds. I do not feel that there is sufficient evidence to keep our waters safe from pollution.	WR115, WR195
<b>Sender Name (Submission ID)</b> Trevon Clay (54177)		
16403	I don't think they should build the mine because there are many places to mine besides doing it right next to a wildlife area.	ALT13
16404	The mining will destroy fishing, the water, the sulfuric acid will destroy almost everything in the water that would be another wildlife destroy.	WR115
16406	The wildlife will be destroyed we need animals to survive like fish and other animals. The acid will make the [ILLEGIBLE] go down.	WI01, WI02, WI04
<b>Sender Name (Submission ID)</b> Trevor Russell (38788)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Trevor Russell (38788)		
4904	There is just no way to be sure that this company will even exist half a millennium from now - when its pollution will still need treatment. Which means there is just no way this won't become a financial burden to our state and an embarrassment to our people.	FIN01
<b>Sender Name (Submission ID)</b> Trish (49559)		
12901	PolyMet may have some good points, but it will also destroy the wetlands!!	WET24
<b>Sender Name (Submission ID)</b> Tristan McCormick (41253)		
9306	As I'm sure you know... the impact of which is huge but containable, sulfide mining tailings produce highly acidic runoff. The upper Minnesotan hydrological system is so interconnected that this would mean centuries of catastrophic and un-manageable ecological costs in what might be the combined most beautiful, ecologically valuable, and visited lake ecosystem in the Union.	WR001, WR115, WR195
9307	Even if they DID commit the appropriate amount of fund (which is probably, you know, hundreds of billions of dollars since the runoff would need essentially indefinite treatment), there is a nearly flawless record of companies like this almost immediately raiding those funds/hiding behind bankruptcy protection. Then who pays for it?	FIN01, FIN08
9308	The few thousand jobs created over the next decade will be nothing compared to the job and revenue losses in the tourism industry that will almost certainly result as people are less inclined to visit a lake system....	SO01
14216	These companies aren't even American! Which might be the WORST possible reason to reject this mine but the money isn't even staying in the state! It's going to some international mining conglomerate acting through shell corporations!!	FIN04
<b>Sender Name (Submission ID)</b> Trout Unlimited Minnesota (54909)		
18866	While state law and prudence require that closed mines be maintenance free, the mining plan outlined in the SDEIS reveals that the NorthMet sites will require hundreds of years of monitoring and water treatment. Indeed, at the end of the arbitrary 500 year time period beyond which PolyMet chose not to run its model, water seeping from the site still will not meet several water quality standards.	WR037, WR128
18868	Some of these pollutants show declining levels, but the SDEIS fails to examine how far the presumably tapering "tails" extends into the distant future. The model needs to be run further out into the future, especially for persistent pollutants such as mercury and other heavy metals.	WR036
18872	The SDEIS does not adequately examine the cumulative impact of long term loading of Lake Superior and inland waters with numerous heavy metals, especially mercury...Indeed all northeast Minnesota trout waters could be impacted by increased emissions of airborne mercury, both from the NorthMet site and from the coal power plants generating the power needed for the operations. These impacts need further analysis in the SDEIS.	MERC08, MERC10
18877	We are particularly concerned that the collective impact of increased levels of sulfates, mercury and other heavy metals leaching into the St. Louis River and Lake Superior, alteration of hydrology, and increased mercury loading in wetlands and waters within the Lake Superior basin will lead to increased bioaccumulation of mercury in fish, ourselves and our children and grandchildren.	MERC03
18878	We note that the SDEIS assumes a net offset in mercury due to treatment of the water entering the Partridge River. However, this analysis fails to account for the fact that there will be no such treatment in the first 40 years.	WR158

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Trout Unlimited Minnesota (54909)	
18879	The SDEIS also discounts the impacts of sulfates and leached heavy metals based upon the fact that they will be somewhat diluted before entering surface waters. However, because of mercury's long term persistence in the environment, discounting impacts based upon dilution is not justified.	MERC16
18881	the impact of failing to replace most of these [impacted/removed] wetlands within the Lake Superior basin needs greater scrutiny. A clear plan is needed which replaces all the important/unctions of these wetland (both destroyed and impacted wetlands) within the Lake Superior basin.	WET03
18882	To preserve the outstanding quality of Lake Superior and the productivity of its coldwater fisheries the wetland impacts must be mitigated within the basin, not elsewhere.	WET03
18883	While the impact of treated water is discussed at length, the substantial amounts of water which will not be collected, conservatively estimated at 10% of all water, are not included in numerous calculations.	WR018, WR070
18884	The SDEIS's assumptions about the absence of fractures under the pit locations, confused by a permeability analysis which assumes no fractures, further cast doubt upon the estimates of seepage volumes.	WR011
18885	Given the substantial doubts surrounding the groundwater model and unproven assumptions regarding bedrock fractures, the lining of all pits and waste rock piles and construction containment systems should be explored as alternatives.	ALT06, ALT07, ALT13
18886	Engineered redundancies for the protection of water quality are warranted from the outset given the importance of preventing any degradation of Lake Superior and its tributaries. It is not appropriate to delay an examination of these measures until the permitting phase. The purpose of the EIS process is to ensure that all potential impacts and measures to avoid them are thoroughly vetted by the public during the EIS process.	ALT13
18887	The SDEIS needs to carefully explore...lining all pits and stockpile locations, including at the mine site;	ALT07, ALT13
18888	The SDEIS needs to carefully explore...installing a water collection system under each liner	ALT13
18889	The SDEIS needs to carefully explore...constructing or extending water containment and collection systems around the entire perimeter of each pit and stockpile	ALT13
18890	The SDEIS needs to carefully explore...locating additional monitoring wells in close proximity to the edges of the containment systems, rather than only at points of discharge into surface waters.	WR078, WR079
18891	We are concerned with plans to essentially "pirate" the base flow from wetlands and streams for many years...The SDEIS fails to examine the impacts on aquatic life of stealing these base flows and pumping it to the pits.	AQ24
18892	The SDEIS should explore other alternatives for supplying water to the pits for subaqueous disposal. Collected groundwater should instead be treated and released into infiltration areas downslope from the containment areas to mimic natural groundwater flow to the streams.	ALT13
18893	The SDEIS fails to detail the monitoring plans which have a bearing on when or whether seepage of contaminated water is detected and corrective action taken. Likewise, it fails to lay out all possible adaptive water management strategies (i.e., share some of the less optimistic scenarios) and evaluate the relative merits and impacts of each.	WR139
18894	Since the adequacy of financial resources can affect the level of impacts, the SDEIS must provide detailed information of the range of financial assurances likely to be required should this project move forward.	FIN08

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Trout Unlimited Minnesota (54909)		
18895	We strongly disagree with the agencies' decision not to conduct a full examination of the underground mine alternative, and with the reasoning offered for it. This alternative is a reasonable one and should have been reexamined in greater detail in the SDEIS...[If all] costs of the open pit mining plan are counted, we suspect that the underground mine alternative will be as economically feasible [as the proposed action].	ALT01
18896	We do not see evidence in the SDEIS that monetary values have been assigned to all of the real costs of the proposed mining plan. These include the costs of truly adequate financial assurances necessary to meet all contingencies, including adaptive water management measures.	FIN01
18897	We caution that the agencies' reasoning used for dismissing an alternative because it does not meet a proposer's "need" is rather circular and could be used to exclude all alternatives which reduce profits. At some point every measure needed for resource protection which is not in a proposer's plan does not meet its "need" for a desired level of profit.	NEPA01
18898	Page ES-39 indicates that the mine would reduce water flows in several tributary streams to the Partridge and Embarrass Rivers. It dismisses the possibility of potential impacts from this on the basis that the flows would "remain within the range of annual natural variability." This reflects a poor understanding of riverine systems, which need period high water and "flushing flows" to maintain ecosystem health.	WR185
18899	Proposed practice of blending sulfides (and heavy metals discharges) to levels where acid mine drainage cannot occur is untested and optimistic.	WR147
18900	The proposed land exchange fails achieve the stated need, "To eliminate surface and mineral conflicts within the Superior National Forest by exchanging federal lands for non-federal lands that have equal or greater value." The proposed exchange does not accomplish this. Rather it merely exchanges one present conflict for future conflicts involving newly acquired lands which also have severed mineral rights.	LAN04
18901	The 90 day comment period was too short for our members to adequately review the voluminous, often technically complex, SDEIS documents.	NEPA07
<b>Sender Name (Submission ID)</b> Trout Unlimited, Chapter 642 (47838)		
12886	The following response was unanimously approved on March 3, 2014 by the board of the Headwaters Chapter 642 of Trout Unlimited. I. Incomplete underground mine analysis compared to open mine	NEPA12
12887	II. Contradicting statements on stream flow, Executive Summary p. 39, table 51 and (appendix C sub sec 1) "reduce water flows to range of annual natural variability	EDIT01
12888	A disregard for human life concerns by not addressing the amphibole mineral fibers that is a definite and significant human risk. Where's the revenue to match the risk	HU01
<b>Sender Name (Submission ID)</b> Troy Rogers (47783)		
8711	As such, I view the PolyMet project as currently proposed, planned, and outlined in their SDEIS to be a major threat to Northeastern MN's long term economic vitality, rather than as an opportunity.	SO02
15843	I am a firm believer in the potential for this region's innate cultural and recreational resources to usher in an era of economic revitalization for the Arrowhead. I also believe that short-sighted decision making based on short term profits for the few can undermine and negate this potential.	SO02
15844	I view the PolyMet project as currently proposed, planned, and outlined in their SDEIS to be a major threat to Northeastern MN's long term economic vitality, rather than as an opportunity.	SO03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Troy Rogers (47783)	
15845	the place I want to be is in Northeastern MN. Foremost among my reasons for wanting to return to the area to live, work, and grow my small start-up company are the pristine lakes and waterways of the Arrowhead region.	WR195
<b>Sender Name (Submission ID)</b>	Tyler Lies (47423)	
17586	I would love to have the ability to continue visiting [the Boundary Waters] in the condition that it's in for years to come, and this won't be possible if it becomes polluted and disrupts the ecosystem that is currently in place.	WILD02
<b>Sender Name (Submission ID)</b>	Tyler Nord (11603)	
2264	Could the loss of wetlands in the area of the mine contribute to hazardous flooding conditions over and above those outlined in the SDEIS?	WR197
2264	Could the loss of wetlands in the area of the mine contribute to hazardous flooding conditions over and above those outlined in the SDEIS?	WR197
2265	The section 404 should be denied and reconsidered for hazardous flooding conditions at the site beyond those listed in the SDEIS, and metropolitan water management downstream on the St. Louis River.	COE03
2265	The section 404 should be denied and reconsidered for hazardous flooding conditions at the site beyond those listed in the SDEIS, and metropolitan water management downstream on the St. Louis River.	COE03
2267	As the St. Louis river watershed is continuing to be cleaned up, and births with high levels of mercury continue to hang around 10% in the arrowhead region, we should consider addressing the LTV tailing pond as it stands, instead of proposing to pour a completely different type of waste in toit.	MERC03
2267	As the St. Louis river watershed is continuing to be cleaned up, and births with high levels of mercury continue to hang around 10% in the arrowhead region, we should consider addressing the LTV tailing pond as it stands, instead of proposing to pour a completely different type of waste in toit.	MERC03
2268	Polymet's tailing pile will be an unlined pile. LTVs preexisting pile is nearly two square miles in size. These piles will contain part of the 99.9% of waste material generated by this project, and will be there in perpetuity. However, the SDEIS claims this will cause no pollution, as pages 5 through 159 indicate.	WR056, WR105
2268	Polymet's tailing pile will be an unlined pile. LTVs preexisting pile is nearly two square miles in size. These piles will contain part of the 99.9% of waste material generated by this project, and will be there in perpetuity. However, the SDEIS claims this will cause no pollution, as pages 5 through 159 indicate.	FIN01, FIN10
2269	The SDEIS does not provide an alternative scenario for a lined pond.	ALT10
2269	The SDEIS does not provide an alternative scenario for a lined pond.	ALT10
2270	The tailing dumps at the LTV site will increase from 2,020 gallons per minute to 3,380 gallons per minute, according to the SDEIS, and claims that 21 gallons per minute will not be contained. That is 0.63% of the total volume moved; where has this system been demonstrated before that substantiate these claims?	PD07

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Tyler Nord (11603)		
1270	The tailing dumps at the LTV site will increase from 2,020 gallons per minute to 3,380 gallons per minute, according to the SDEIS, and claims that 21 gallons per minute will not be contained. That is 0.63% of the total volume moved; where has this system been demonstrated before that substantiate these claims?	PD07
2271	I request the SDEIS be rejected and redone to analyze water quality outcomes if the tailings pile collection rate is not what Poly Met claims.	WR018
2271	I request the SDEIS be rejected and redone to analyze water quality outcomes if the tailings pile collection rate is not what Poly Met claims.	WR018
2272	I ask that the land exchange be denied until the SDEIS addresses the alternatives to courses of action in regards to the project, at most levels as the SDEIS does little in the way of addressing different methods or outcome scenarios.	ALT23
2272	I ask that the land exchange be denied until the SDEIS addresses the alternatives to courses of action in regards to the project, at most levels as the SDEIS does little in the way of addressing different methods or outcome scenarios.	ALT23
2406	I would like to request that it [SDEIS] is rejected and reanalyzed.	NEPA15
2409	in the SDEIS -- in the EIS they demonstrate that they will be using the LTV site. (Inaudible) it drains from the bottom into three separate streams. It was designed that way. They are just going to pile a different type of waste on top.	WR018, WR182
2410	I will remind you that this type of mining has never been done safely and we live in a high-water content area	WR023
2411	... PolyMet doesn't acknowledge 500-year floods or 1,000-year floods, 2,000-year floods at the site...The main flaw in the EIS, the acronym that applies here, it is that it doesn't show what happens if the pumps at the edge of that tailing pond fail. It doesn't show the alternative scenarios. It doesn't show that 21 gallons per minute that leaks from the LTV site, that they admit will be leaking 21 gallons per minute, that is --first of all, that's never been demonstrated before. They acknowledge that untreated water will be leaving the waste site.	WR021
7859	The wetlands are literally an irreplaceable asset in the watershed; no wetland, natural or fostered, will contribute to the relevant watersheds as the loss proposed in the Section 404 request	COE01
7859	The wetlands are literally an irreplaceable asset in the watershed; no wetland, natural or fostered, will contribute to the relevant watersheds as the loss proposed in the Section 404 request	COE01
13911	When you take a wetland out from one area, you can't just have another one happen somewhere else. Any technologist can tell you that. Any geographer can tell you that. It might be a similar size of wetland, but the service it provides to your economy isn't the same, if in a specific location, you filter more water than in another location. So, just adding more wetlands somewhere else while destroying the wetlands on the other line won't work.	WET05
<b>Sender Name (Submission ID)</b> Tyler Reid (42009)		
2059	Sulfide mining has never been done in Minnesota and ... Acid Mine Drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred.	WR023
2060	The Federal land exchange of protected Superior National Forest land to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest.	LAN01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	UM Natural Resources Research Institute (42893)	
5507	The public does not fully understand the underlying science related to the generation of acids due to the proposed mining operations...Clarify the underlying geology and chemistry, esp. why certain metals are apt to bind with sulfides in nature...	WR001
5516	How can the time periods for active vs. passive treatment [of water at the Mine and Plant sites] be better constrained? Articulate results more clearly; provide model results across a range of specific flow and treatment option scenarios. Provide results of sensitivity analyses for hydrologic modeling.	WR036, WR137, WR175
5517	How do you insure that the potential for acidic runoff is mitigated before it leaves the pile area? A potential solution may be use of a fine limestone so that water can interact with this material to neutralize any leachate found. (Reaction kinetics information may be needed to show this will work.)	WR127
5518	How does PolyMet assure that there is not a significant amount of class 2/3, class 4 (dc) and class 4 (VF) materials in the class 1 waste pile? Consider a potential approach as follows: put clay liner down, then layer of fine limestone to react with any potential sulfuric acid that may be generated; calculate based on assumption that a little of the class 2/3, class 4 (DC, VF) is present; clarify how rock type separation is to be controlled.	PD15, PD34
5519	What actions must be taken to control acid generation in the east pit area? Consider a calculated limestone addition. Amount of limestone should be based on mass balance calculations to react with/to total amount of sulfur present. It may be possible to pre-buffer the higher sulfate rock as it is being added to the pit so that potential acid sulfate issues are mitigated before they can cause environmental harm. Consider lining the pit walls in areas of enhanced sulfide materialization prior to filling the pit to minimize water contact with sulfide materials.	WR002, WR027
5520	What special quality control procedures will be used to ensure that "excellent" installation of the [geomembrane] liner is achieved? Provide a quality control plan for effective sealing of liner materials.	PD15
5521	What is the expected lifespan of geomembrane liners? Literature suggests that lifespan is unknown, but will depend on type of membrane, geochemical, and physical environment. Major points of failure are seams. Certainly the lifespan will be finite; will it be shorter than the predicted need for either temporary (class 2/3, 4) or long-term (class 1) sequestration? Provide data addressing the life-span and performance of the liner.	PD15
5522	Is ageing of the slurry wall an issue? What if cracks (etc.) are present or are created in the bedrock by the construction of the slurry wall. What contingency plans are in place for problems or failures associated with the slurry wall?	PD07
5523	At present, the amount of actual ore to be process is ambiguous. Clarify the volume of material that will be removed, processed, and produced as concentrate. Indicate actual amount of rock to be processed in terms of metallic values. Indicate the volume of residue from the hydro-met system that will be generated and the proactive treatment regime that will be employed to minimize future issues with this material category.	PD30
5524	Salt will be a significant byproduct resulting from operations of reverse osmosis units. Define how salts from reverse osmosis unit will be handled/disposed of on a long term basis.	PD03
5526	How will PolyMet ensure that facilities will last as long as treatment is necessary? Indicate the measures that will be taken to maintain/improve conditions as adaptive management proceeds. Some of the countermeasures noted in previous sections could be very helpful in reducing overall long-term treatment requirements.	PD22
5532	How will dust loading be handled at the crushing stages of the ore? Describe plans to characterize, monitor and control dust. Describe the physical, chemical, and mineralogical attributes of the dust, and evaluate potentially harmful health affects (for example, respirable silica, elongate mineral particles, etc.)	AIR10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	UM Natural Resources Research Institute (42893)	
5538	Project will result in increased loading [of mercury] into Embarrass River and decreased loading into Partridge River (because of water treatment). Results in a net decrease in Hg loading to the St. Louis River. However, given the current TMDL for mercury, is any increase in Hg loading to a permanent water body acceptable, even if the net result of the project is decreased loading downstream? Consider engineering solution.	MERC18, MERC22
5544	The pit lake was cited as needing perpetual treatment due to leaching from pit sidewalls (SO <sub>4</sub> , heavy metals). Consider proactively treating the water filling pit so leaching of sulfate, heavy metals is precluded or minimized. Actions could be taken to lessen leaching from mine walls. The following treatments could be considered: (1) Add class 1 materials into pit to reduce depth of lake, and minimize access to pit walls for reactions, to a depth where reaction to produce acid would likely not take place. (2) Limestone addition is typically used to reduce sulfate levels in pit lakes right now -- calculate amount of limestone necessary to mitigate leaching from pit sidewalls and production of metals/sulfate. This reduces amount of class 1 material in class 1 waste rock pile and will reduce the overall depth of the proposed pit lake. In addition, if all the Class 1 material is backfilled into the West pit then the legacy issues potentially associated with any intermixing of higher sulfur rock that might get into this pile are eliminated.	ALT03, ALT06, ALT13
5545	PolyMet could explore sustainability options involving beneficial use of the synthetic gypsum produced during the hydromet process. Encourage the exploration of market options for this material in the building products (e.g. gypsum board) and agriculture (e.g. soil amendment) sectors.	ALT17
5546	What is the magnitude of pH change as a result of the proposed action in relation to background levels of natural and pit lakes in the region? Illustrate pH values of pit lakes across range in relation to proposed pH of pit lake at PolyMet proposed site. Illustrate predicted pH, alkalinity, and sulfate for the tailings basin and the pit lake. Define pH variance. Consider baseline data with respect to acid mine drainage issues and concerns.	WR001, WR060, WR173
5547	Contingency planning [in cases where treatment plant activities are compromised] is a must and should include responses to failure of passive systems (pits, tailing ponds, slurry wall, etc.) and active systems (WWTF, WWTP)...Evaluate 100 year and 500 year weather events and develop responses that will prevent any water deterioration or other environmental degradation.	PD22
5548	There was no analysis to account for changing climate, and potential effects of both higher peak flows and increased variability...Hydrologic models in the EIS do not account for the possibility of lower base flows in summer (due to less precipitation and higher evapotranspiration caused by increased air temperatures), and potential for increased number of intense rain events. Contingency plans are needed for all such scenarios.	PD22, WR180
5549	There is no analysis to account for changing base flow levels. Indicate results of sensitivity analyses at lower- and higher-base flow values that were utilized in developing the hydrologic models.	WR003, WR091
5550	Wetlands will be lost in a region that currently contains a large proportion of its original wetlands. Selecting potential mitigation wetlands can be challenging in these conditions...Focus mitigation on "restorable" wetlands within the same watershed; or consider the possibility of enhancing existing wetlands of the same type elsewhere in the watershed. NRRI expertise can contribute to the selection of restorable wetlands and enhancement of existing wetlands.	WET03
5551	Ensure that worker health safety measures are clearly discussed in EIS, and that contingency plans for worker/public safety in the event(s) of emergencies are clearly spelled out. Indicate measures by which PolyMet will insure that OSHA/MSHA standards for worker health safety are addressed and met.	HU04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> UM Natural Resources Research Institute (42893)		
5552	What is the true life cycle cost of this project, from inception through closure? An economic model that includes both inputs and outputs must be a part of the discussion; the IMPLAN model was limited in scope and accounts for the benefits side of the equation but does not consider the total costs of this project relative to the benefits of jobs and taxes. Consider conducting a more thorough economic study that includes the externalities, such as the costs of pollution control and abatement, the loss of ecosystem services from the lost wetland and forest cover should be conducted, and cost of road and other infrastructure use and degradation.	SO04
5553	What quantity of refined metal will be produced within Minnesota and/or domestically? What percentage of the metals is anticipated to be used domestically, and what percentage will be exported? Why is it strategically important for the United States to produce these metals here? Describe the degree to which the United States' dependence on non-ferrous metals is anticipated to be met by the project. Indicate current US strategic metal reliance on foreign sources	SO04
5554	What is the position of PolyMet in following the sustainability directives currently suggested by various mining organizations (for example, 10 Principles of ICMM)? We strongly encourage PolyMet to develop and commit to maintaining a transparent responsible mining policy and discuss how objectives will be achieved to maintain a Social License to Operate throughout all phases of the proposed project.	ALT01
<b>Sender Name (Submission ID)</b> United Transportation Union (54880)		
19569	We believe that northern Minnesota has the opportunity to produce minerals that will remain in demand far into the future in a manner that can set the high standard for environmental preservation worldwide...We look forward to the delivery of essential rail service with new economic development in northern Minnesota.	SO10
<b>Sender Name (Submission ID)</b> USEPA (47834)		
2981	Comment # 1. Spill prevention is an important part of the mitigation for this project. Using new or retrofit side dump rail cars (possibly with hydraulic air-operation conversions) should be considered as part of the mitigation package for the proposed action. Proactive mitigation through the use of updated rail infrastructure would help reduce spillage and subsequent environmental concerns, possibly including the need for additional long-term water treatment.Recommendation: Consider use of new or retrofit side-dump rail cars when producing the spilled ore plan.	COOP01, WR151
2982	Comment # 2. Pages 5-50 forward describe how the company has classified its waste rock and tailings into four categories based on their likelihood to generate acid rock drainage. We understand from discussion with the co-lead agencies that lime will be added to Category I waste rock, which is expected to result in neutral to slightly basic pH.Recommendation: The FEIS should indicate that Category I waste rock leachate is expected to have a neutral to slightly basic pH due to the addition of lime.	COOP01, WR027
2983	Comment # 3. Page 5-157, Section 5.2.2.3.3, 2nd Paragraph: information on the design, operations, and monitoring plans for the hydrometallurgical research facility (HRF) is insufficiently detailed.Recommendation: The FEIS should provide information on the HRF's design and operations in sufficient detail for the reader to understand potential impacts associated with this facility and how those impacts will be avoided or mitigated. This includes explaining that a detailed Residue Management Plan for this facility will be required during permitting.	COOP01, PD17, WR066
2984	Comment # 4. Page 4-336 discusses the possibility of inundating an existing coal ash landfill located within the proposed tailings basin. Based on current knowledge of leachate concentrations found in groundwater at such landfills, inundation may lead to future water quality impacts.Recommendation: The FEIS should discuss how constituents found in the coal ash landfill may impact water quality in the Embarrass River, how this landfill will be protectively managed, and how any impacts will be mitigated.	COOP01, WR028

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USEPA (47834)	
2985	Comment # 5. CWA requirements for antidegradation ("nondegradation" in Minnesota's terminology) help ensure that a proposed project will not result in a loss of existing uses of surface waters, and preclude reduced water quality unless the State determines it is necessary to accommodate important social and economic development (see 40 CFR 131.12). This review must occur before project activity that may result in a new or increased discharge commences, and should not be deferred until NPDES permitting. EPA understands from discussion with MPCA that much, if not all, of the information needed for an antidegradation review is already contained in the SDEIS. Recommendation: The FEIS should include an evaluation of which of Minnesota's nondegradation rules (7050.0180, 7050.0185, 7052.0300) apply to this project, and explain how the project complies with the applicable nondegradation rules	COOP01, PER09, WR109
2986	Comment # 6. The proposed project provides significant overall environmental improvements over the proposal in the DEIS through installation of seepage containment and other controls at the former LTV tailings basin. However, the SDEIS modeling predicts increases in aluminum (Al) and lead (Pb) in surface waters affected by the proposed project- including exceedances of evaluation criteria for Al and Pb at locations on four tributaries to the Embarrass River (p. 5-7 to 5-8). These predicted increases are based on a number of assumptions, including the contribution from remediation of the former LTV tailings basin. The SDEIS modeling also predicts other increases and exceedances of evaluation criteria based on the "Continuation of Existing Conditions" scenario. EPA understands that monitoring of receiving waters downgradient of the existing tailings basin is being carried out now. This monitoring data will be an important source of information to consider along with modeling results. Recommendation: Available monitoring data should be used to inform NPDES permitting. Monitoring should continue throughout the life of the project to inform permitting, adaptive management, and additional measures to prevent or mitigate impacts to aquatic life as necessary.	AQ12, AQ30, COOP01, WR139
2987	Comment # 7. The SDEIS anticipates that pollutants will be discharged from mine site features, travel via groundwater pathways and reach the Partridge River several years following the start of the mining project. See SDEIS Table 5.2.2-26. However, as EPA has stated previously, the pollutants originating from mine site features may discharge to jurisdictional wetlands and tributaries prior to reaching the Partridge River. CWA Section 301 prohibits any point source discharge of pollutants to waters of the United States, either directly or via directly connected groundwater, unless the discharge complies with a NPDES permit. Waters of the United States include jurisdictional wetlands and tributaries. See 40 CFR 122.2. Recommendation: The FEIS should reflect the fact that a NPDES permit is required before the pollutants from the mine site reach waters of the U.S. (including jurisdictional wetlands and tributaries). Statements in the SDEIS about when discharges will reach waters of the U.S. should be revised, and these changes should be reflected in the FEIS.	COOP01, PER05
2988	Comment # 8. The Tribal Cooperating Agencies Cumulative Effects Analysis (September 2013) included in Appendix C of the SDEIS states: "PSDEIS Table 4.2.2-18 reports Colby Lake as currently having an observed mean for Arsenic of 0.78 to 1.4 ug/L (depending on the data set), whereas Figure 5.2.2-35, the No- Action (continuation of current conditions)" P50 model for Colby Lake Arsenic shows annual maximum values of 0.5 ug/L." In addition, the SDEIS shows Colby Lake's current mean arsenic concentration as 0.78-1.4 ug/L on Table 4.2.2-18, with a range of 0.25-2.3 ug/L, while the modeled p90 maximum value in Figure 5.2.2-35 lists the maximum concentration of arsenic in Colby Lake as 0.70 ug/L. Comparing the modeled mean for arsenic in Colby Lake to existing site-specific data in the SDEIS, the model outputs underestimate arsenic concentrations by up to 100%. Colby Lake is currently modeled as a continuation of the Partridge River because there is insufficient data to model it as a lake, which may be causing this discrepancy. We understand that monitoring is ongoing, which may provide additional information on observed arsenic concentrations. Recommendation: The FEIS should document an analysis that addresses this discrepancy between existing conditions in Colby Lake and modeling results, taking into account all necessary data. The FEIS should include any follow-up actions that will be necessary based on this analysis.	COOP01, WR046
2989	Comment # 9. Modeling using MODFLOW assumes no seepage through the berm on the east side of the tailings basin. The co-lead agencies have agreed to reexamine this assumption. MODFLOW outputs are used as an input to the GoldSim model, so changes to these outputs may require updated GoldSim modeling as well. Recommendation: Recalibrate MODFLOW as necessary to reflect seepage on the east side of the tailings basin, and update GoldSim modeling as necessary. The FEIS should explain how this comment was addressed.	COOP01, WR054, WR102

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USEPA (47834)	
2990	Comment #10. Modeling of water quality parameters is subject to inherent uncertainties that call for ongoing evaluation. For example, acid rock drainage (ARD) in cold, wet climates raises uncertainty due to climatic factors including distinct freeze-thaw cycles, varying contributions from rain and snow, and a period of significant melting during the spring thaw. Recommendation: The permit to mine should require water quality modeling throughout the life of the mine, assuring that the model uses input from actual monitoring discharge data as it becomes available, so this information can be used to support adaptive management. The model should accommodate specific climatic factors associated with the site.	COOP01, WR130, WR139
2991	Comment #11. MDNR has collected new Partridge River flow data that vary from the base flow calculations used for modeling in the SDEIS. The co-lead agencies have explained that the model accounts for this discrepancy, which is correlated with pit dewatering from the upstream Peter Mitchell Pit, a factor that was not present during the time period used for continuous flow data in the SDEIS (1978-1987), Details are provided in a technical memorandum from the coleadagencies. While the flow data used in the S DEIS was appropriate, low-flow conditions may not represent the most conservative conditions, though they are conservative in that they assume less dilutionof contaminants. However, dilution is the only variable considered. High-flow conditions, while increasing dilution, may mobilize contaminants toa greater extent than expected under low-flow conditions. Recommendation: The FEIS should evaluate how base flow affects variables other than dilution, taking into account high-flow as well as low-flow scenarios.	COOP01, WR091, WR165
2992	Comment # 12. There is insufficient detail to explain why "outlier" data were excluded from consideration in the GoldSim model. Recommendation: The FEIS should provide a specific justification to support excluding any such data from modeling.	COOP01, WR072
2993	Comment # 13. Page 5-61: the SDEIS shows that tailings leachate pH increases after 300 weeks, but does not show how leachate pH was extrapolated to the longer term, such as 50-100 years. We understand this data is already available. Recommendation: The FEIS should show how leachate pH was extrapolated to the longer term, such as 50-100 years, through a graph or chart.	COOP01, WR001
2994	Comment # 14. The SDEIS could be interpreted to imply that the plant site is expected to need water treatment for up to 500 years, and the mine site for up to 200 years. We understand from discussion with the co-lead agencies that this interpretation is incorrect. Recommendation: The FEIS should clearly explain the timeframe during which water treatment is projected, for both the plant and mine sites.	COOP01, WR036
2995	Comment # 15. Page 5-20: the SDEIS states that "mercury was not included in the GoldSim model, as insufficient data and a general lack of definitive understanding of mercury dynamics prevented modeling mercury like the other solutes." It also states that "regardless, the NorthMet Project Proposed Action would still need to demonstrate consistency with the mercury evaluation criteria (see Section 5.2.2.1)." Given the absence of modeling data for mercury, it is unclear how consistency with mercury evaluation criteria will be determined. Recommendation: The FEIS should either provide a supporting rationale that explains why elemental mercury does not warrant modeling, and how consistency with mercury evaluation criteria will be determined; or include modeling and evaluation of elemental mercury. If GoldSim is not suitable to model this pollutant, elemental mercury can be modeled using a different water quality model, such as the Water Quality Analysis Simulation Program (WASP)3, which is commonly used by EPA to model elemental mercury.	COOP01, MERC13
2996	Comment # 16. Page 5-509, Section 5.2.10.2.6, 51h paragraph: The SDEIS states that "increased mercury concentrations, and associated increases in mercury bioaccumulation in fish tissue could therefore constitute an environmental justice impact for Band members and other subsistence consumers of fish;" and that "deposition of mercury from the NorthMet Project Proposed Action would cease at closure, but mercury bioaccumulation in fish tissue and existing fish consumption limits could persist beyond the mine's operational life." Table 5.2.2-51 shows how much elemental mercury is expected to leave the project site under currently-proposed control measures. Further consideration of mercury impacts is needed. Recommendation: The FEIS should refine the quoted statement to more clearly characterize the risks associated with mercury releases. Based on this risk characterization, the FEIS should explain what has been and will be done to avoid, minimize, and mitigate mercury releases from the project.	COOP01, MERC02, MERC24

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USEPA (47834)	
2997	<p>Comment # 17. The SDEIS describes current site conditions, including the acreage, type, and quality of the wetland resources at the tailings basin and mine sites. The SDEIS also describes the proposed direct impacts remaining after measures to avoid or minimize direct impacts. However, the SDEIS does not quantitatively assess indirect impacts or measures to minimize and mitigate these impacts, except with respect to wetland losses due to fragmentation. The SDEIS also omits all indirect impacts from the cumulative impacts analysis for wetlands (Section 6.2.3.4). Recommendation: The FEIS should quantitatively assess all indirect impacts. The FEIS should more clearly describe the proposed mitigation plan, including mitigation for indirect impacts. The monitoring and mitigation plans in the CW A Section 404 permit should clearly explain proposed measures to minimize and mitigate indirect wetland impacts during the project.</p>	COE02, COOP01, WET18
2999	<p>Comment # 18. The SDEIS uses wetland assessment sites as an approach for evaluating impacts. The location of these assessment sites is discussed in the SDEIS, and Figure 4.2.3-2 shows locations of wetland assessment sites as points in a diagram. There are few wetland assessment site locations north and south of the mine site, and those shown on Figure 4.2.3-2 are far from the site boundary. The SDEIS does not sufficiently explain the assessment approach. Recommendation: The FEIS should describe in more detail the wetland assessment protocol and the assessment sites used, including the assessment methods used at those locations, why these locations were chosen, and how will they be used (e.g., for monitoring future wetland conditions).</p>	COOP01, WET21
3000	<p>Comment # 19. Section 5.2.3 states that 26.9 acres will be impacted by fragmentation, and that these losses will be mitigated. The criteria used to determine fragmentation are broadly described in Section 5.2.3.1.2, but lack sufficient detail. Recommendation: The FEIS should describe in more detail the criteria used to determine fragmentation losses.</p>	COOP01, WET08
3001	<p>Comment # 20. Figure 5.2.3-4 highlights wetland acres at the mine site where the proposed mine features would indirectly impact wetlands by fragmentation. Fragmentation is defined in the SDEIS as causing a change in the watershed area by greater than 20%. The SDEIS (Page 5-226) briefly describes how fragmented wetlands were identified, but does not explain the method for determining the 20% threshold. Indirect impacts from fragmentation at the mine site will also include habitat fragmentation, divisions in vegetative communities, and the general loss of functions in wetlands that are divided from adjacent wetlands and made smaller by mine features. Wetland acres that are surrounded on all sides by mine features will be fragmented because their ecological functions will be impaired. Recommendation: The FEIS should explain how the 20% threshold was determined. The FEIS should also recognize that the term "fragmentation" may define indirect impacts other than changes in watershed size. These other factors should be included when estimating fragmentation impacts. Compensatory mitigation should also be proposed for all losses of wetland functions due to wetland fragmentation (in addition to adverse impacts from changes to a wetland's watershed).</p>	COOP01, WET01, WET08
3002	<p>Comment # 21. Section 5.2.3 describes the proposed wetland mitigation plan. EPA previously commented on the proposed mitigation ratios, and supports the mitigation ratios proposed in USACE's May 29, 2013 Draft Memorandum on The Application of the Federal Mitigation Rule and St. Paul District Policy Guidance on Compensatory Mitigation, as described on page 5-316. The SDEIS describes the proposed ratios, but also states, "The determination of final mitigation credits ... would be determined during permitting" (p 5-224). Recommendation: The FEIS should provide a status update on development of final wetland mitigation credits. EP A will work with USACE during CW A Section 404 permitting to determine the final wetland mitigation credits needed, including mitigation for indirect impacts.</p>	COOP01, WET04
3003	<p>Comment # 22. The proposed mitigation plan includes post-mining on-site wetland mitigation. Restoration of wetlands on the site as part of reclamation is positive and important, but EPA and USACE have agreed that mitigation credits are not appropriate given how long it will be before this mitigation is carried out. The S DEIS contains inconsistent statements regarding whether or not on-site mitigation is proposed to generate mitigation credits. Recommendation: The FEIS should be clear that post-mining, on-site mitigation will not be used for mitigation credits. The mitigation plan in the CW A Section 404 permit should exclude mitigation credits for post-mining, on-site wetland mitigation.</p>	COE01, COOP01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USEPA (47834)	
3004	Comment# 23. Page 6-36, Table 6.2-8 and Pages 6-40 to 6-42, Table 6.2-11: There appear to be some inconsistencies between Table 6.2-8 and Table 6.2-11 with respect to reported future wetland and water resource numbers, including the bullet summaries for the Partridge River (Page 6-40) and Embarrass River (Page 6-42). For the Partridge River, Table 6.2-11 and bullet summary text note future condition with 3,516 acres of deepwater resources, while Table 6.2-8 indicates 1,922 acres. Recommendation: The FEIS should resolve or explain these inconsistencies.	COOP01, EDIT01
3005	Comment# 24. Page 6-21, Section 6.2.3.3.2: the "Contributing Past, Present, and Reasonably Foreseeable Actions" section, lists twelve foreseeable future actions with potential cumulative effects on surface water hydrology and quality in the Partridge River and Embarrass River watersheds. There is some inconsistency between this list and Table 6.2-1 (Page 6-7). "Cliffs Erie, LLC- Hoyt Lakes Area (former LTVSMC)," and "Cliffs Erie, LLC- Area 5 NW Pit" are not included in the table, at least not by these names. Recommendation: The FEIS should resolve or explain these inconsistencies, and use consistent names for foreseeable future actions to simplify cross-referencing by the reader.	COOP01, EDIT01
3006	Comment # 25. Page 6-26 states: "In summary, the maximum cumulative effects of the NorthMet Project Proposed Action, plus present and reasonably foreseeable future actions on the hydrology of the Partridge River, would be expected to reduce average annual flow in the Lower Partridge River at any time during operations by no more than 8.4 cubic feet per second (cfs) and 2.4 cfs (2 percent) during closure of the NorthMet Project Proposed Action, based on average annual flow of 112 cfs at USGS gauging station 04016000 downstream of Colby Lake." In some cases, this effect is well above the mean recorded flow of the Upper Partridge River during certain times of the year. The SDEIS does not address how flow reductions will affect the Partridge River and its resources. Recommendation: The FEIS should discuss the magnitude and significance of these flow reductions, including additional analysis or information as necessary. Potential impacts caused by these reductions should be discussed in section 6.2.3.3.3.	COOP01, WR024
3008	Comment # 26. Pages 6-22 to 6-25 and 6-27 to 6-28, Section 6.2.3.3.3: This text does not reference sources of hydrological effects data for each action. Recommendation: The FEIS should reference sources of hydrological effects data for each action.	COOP01, EDIT01
3009	Comment# 27. Table 6.2-15 shows the direct effect of other actions in terms of populations of each plant species affected. However, the SDEIS notes that for 4 out of 9 potentially contributing actions, "The NHIS data and MDNR take permit data were reviewed and no vegetation records were available for these actions. As a result, these actions are not considered in the cumulative effects analysis for vegetation." Recommendation: The FEIS should indicate whether the lack of vegetation records indicate no cumulative effects on vegetation, or simply lack of data on the subject.	COOP01, VEG08
3010	Comment # 28. We understand that MDNR will not calculate detailed financial assurance until the Permit to Mine process, although it may have additional information before the FEIS is issued. Recommendation: The FEIS should include additional information on financial assurance as available.	COOP01, FIN01, FIN08
3011	Comment # 29. The SDEIS does not identify the least environmentally damaging practicable alternative (LEDPA). This information will be required for CWA Section 404 permitting under CWA Section 404(b)(1). Recommendation: The FEIS should describe the process that will be used to determine the LEDP A, and should provide LEDP A information to the extent it is available.	COE02, COOP01
3012	Comment # 30. The Noise section and page 5-370 of the SDEIS does not sufficiently describe potential noise impacts from blasting and vibrations on wildlife. A cited Federal Highway Administration technical document in Appendix C of the SDEIS provides information on the sound threshold and frequency range for four biologic classes (mammals, birds, reptiles, and amphibians). Recommendation: The FEIS should contain analyses of noise and vibration impacts to wildlife based on the above biologic classes' sound threshold and frequency range, based on information included and cited in the SDEIS. Any impacts and/or mitigation measures should be noted in the FEIS.4	COOP01, N04

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USEPA (47834)	
3013	Comment # 31. On pages 1-14 and 1-15, the SDEIS notes that the USFS must determine that "the public interest will be well served" before it can enter into a discretionary, voluntary real estate transfer (36 CFR 254.3(b)). This analysis is included in the SDEIS, but should be made clearer and more focused. Recommendation: The FEIS should clearly and concisely summarize the analysis of the proposed land exchange (Alternative A) and Alternative B under 36 CFR 254.3(b), including a clear explanation of the rationale and criteria for selecting the preferred land exchange alternative, and of how protecting cultural resources is included in the public interest determination.	COOP01, LAN01
3014	Comment# 32. The SDEIS states that modeled groundwater capture system efficiency at the tailings basin is at least 90%. However, it does not explain the basis for this estimate.Recommendation: The FEIS should provide the specific model assumptions that were used to make this determination. Recommendation: The FEIS should indicate that any discharge not captured by the proposed capture systems and entering waters of the U.S. (e.g., jurisdictional wetlands, the Partridge and Embarrass Rivers and their tributaries) is subject to NPDES permitting.	COOP01, PER05, WR017, WR018
3016	Comment # 33. Pages 4-261 through 4-264 refer to cultural resources/Section 106 resources solely as historic properties. Recommendation: The FEIS should make it clear that cultural resources include archaeological resources.	COOP01, EDIT01
3017	Comment # 34. Moose is a culturally-important species that has traditionally been subsistence hunted by the Chippewa Tribe. The SDEIS does not adequately describe how the proposed project will impact moose population and habitat of moose. Based on information in the SDEIS, it appears that there are unconsidered impacts to moose population and habitat, such as the proposed impacts to two local wildlife corridors, moose reliance on wetlands during warmweather, and impacts on foraging. Recommendation: The FEIS should more completely explain how the proposed action will impact moose population and habitat.	COOP01, WI01
3018	Comment# 35. On March 13, 2014, MPCA released preliminary findings on the effects of sulfate on wild rice growth.Recommendation: The FEIS should provide the most current available information on MPCA's findings, and on next steps based on these findings.	COOP01, WR152
3019	Comment # 36. Section 5.2.14 addresses geotechnical issues at the mine. Reasonable stability analyses were conducted for the permanent waste rock pile, but it is unclear if the company has committed to designing this unit so it meets conservative static stability Factors of Safety (FOS) (static FOS of 1.5 and seismic FOS >1). The company has committed to meeting conservative FOS for both the tailings basin and the HRF. Recommendation: The FEIS should clarify the company's commitment with respect to design of the permanent waste rock pile.	COOP01, GT04
3020	Comment # 37. Liquefaction analyses were not conducted for the HRF, based on the assumption that those wastes could compress and that the likelihood of liquefaction is remote. However, liquefaction and liner leakage could occur at the HRF because the HRF is proposed to be located above a hydraulically-active seep, which will place inward hydraulic pressure on the HRF liners. Recommendation: The potential for liquefaction should be analyzed. The FEIS should clearly summarize the results of this analysis, including next steps in response to this analysis.	COOP01, GT11
3021	The alternatives analysis in the application references the 2009 Draft Environmental Impact Statement (DEIS) and 2013 Supplemental Draft Environmental Impact Statement (SDEIS), but does not include the necessary detail to determine that the preferred alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA). Since the DEIS was published in 2009, the project has evolved and many alternative have been eliminated. Chapter 6 in the application describes some of those alternatives as they relate to direct wetland impacts; it is not a comprehensive list of alternatives, and it does not consider indirect impacts to wetlands and streams. EPA recommends that the applicant develop a table describing all alternatives considered during the environmental review process (e.g., mine methods, mine configurations, tailings processing options). The table would assist EPA in determining whether or not the preferred alternative is the LEDPA. The table should also include the reasons each alternative was eliminated, including references, and the potential direct and indirect effects to wetlands and streams.	COE04, COOP01

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	USEPA (47834)	
3022	The application does not provide a quantitative assessment of all indirect impacts (except for fragmentation impacts). We recognize that the heterogeneity of the project site and the complexity of the wetlands and hydrology make it difficult to quantify indirect impact, but we recommend that specific impacts to wetlands within the mine site be identified to the extent possible. The application should better estimate the changes in functions and values at wetlands, especially those surrounded by mine features.	COE02, COOP01
3023	Specifically, EPA is concerned that there will be indirect impacts to remaining wetland areas in Wetlands Nos. 33A, 45, 48, 57, 68, 101, 88, 96, and 107. Indirect impacts in these wetland areas will include habitat fragmentation, divisions in vegetative communities, and the general loss of functions in wetlands that are separated from adjacent wetlands and made smaller by mine features. Specific compensatory mitigation should be proposed for all losses of wetland functions (including identification of ratios and site locations).	COE01, COOP01
3024	Large Figure 9 and 10 and Large Table 2 in the application highlight wetland areas at the mine and plant sites where the proposed mine features would indirectly impact wetlands by fragmentation. Compensatory mitigation is proposed for those areas. Page 3 of the Wetland Analysis Workplan (Attachment B) gives a brief description of how fragmented wetlands were identified, but the application should also describe the impact thresholds and how the fragmentation impact criteria were developed.	COE02, COOP01
3025	Page 58 of the application states that the purpose of the indirect impacts analysis is to inform the monitoring plan for indirect wetland impacts. The application should include a description of how the impacts analysis will be used to ensure that indirect impacts are avoided, minimized, and mitigated. Section 11-5 in the application implies that the indirect impact monitoring plan will focus on wetlands that are under threat by multiple indirect impact factors (Table 11-1 ); this is not a valid approach because even wetlands that are under risk of one factor (such as only drawdown or only decreased water quality) would result in a loss of wetland function. We recommend more comprehensive monitoring for indirect impacts at the plant and mine sites.	COE02, COOP01
3026	The application does not describe monitoring for stream impacts surrounding the project areas. We recommend that the U.S. Army Corps of Engineers (Corps) require monitoring for indirect impacts to headwater streams surrounding the site as well as impacts to wetlands.	COE02, COOP01
3027	There is a potential for indirect impacts to wetlands, Spring Mine Creek, and Spring Mine Lake on the east side of the tailings basin, but no monitoring sites are proposed for that area. Wetland and stream monitoring sites should be required for the east side of the tailings basin.	COE02, COOP01
3028	Section 17.1 of the application describes that wetland monitoring wells 1,4a, 6, 10, 12, 15, and 21 are "being removed because they are either within the direct project impacts or areas where no potential indirect impacts are anticipated". Figure 16 shows Wells 4a, 6, 10, 12, and 15 just outside the project boundary and between mine features and Yelps Creek and the Partridge River. These wells are in wetland areas that would likely be impacted by adjacent mine features because of their close proximity to the mine features and wetland areas. For a more comprehensive impacts analysis, we recommend that the applicant continues to monitoring at the existing wells where they are outside the direct mine impact locations. Because there are baseline hydrologic data at these locations, changes in wetland hydrology, if they occur, should be evident.	COE06, COOP01
3029	Some wetland types, such as coniferous and open bogs, are sensitive to subtle changes in hydrology. A 50% change in hydroperiod (the proposed impact criteria) may not be an adequate measure of adverse impacts to the wetland vegetation communities. The applicant should include a more complete description of impact criteria and rationale for the proposed monitoring and reporting schedule.	COE02, COOP01
3030	Section 17.4 of the application states that wetland baseline conditions for wetland vegetation will be established during the first growing season after permit issuance. EPA recommends that the Corps require baseline vegetation monitoring prior to permitted impacts to ensure that a true pre-impact baseline is established.	COE06, COOP01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> USEPA (47834)		
3031	The vegetation monitoring is proposed for every 5 years. The basis for the proposed monitoring frequency is not clear from the application. Effectively managing certain threats to the wetlands, such as invasive species or vegetation changes due to drawdown, requires early detection, and monitoring every 5 years might not be sufficient to adequately manage the threat. EPA recommends increasing monitoring for vegetation changes to every 2 years to better be able to identify and manage any adverse impacts to wetlands early.	COE06, COOP01
3032	The adaptive management plan described in Section 17.8 uses a phased approach to assessing indirect impacts and providing compensatory mitigation for adverse impacts to aquatic resources. Phase I is described a broad based monitoring; while Phase II would be a more detailed assessment. In order to determine if the adaptive management plan is sufficient, EPA needs more information on the timing and methodology of Phases I and II of the monitoring plan. EPA is concerned that Phase II monitoring would not be designed unless deemed necessary, and that the threshold for determining a need for Phase II is not described. Clear impact criteria must be established and potential mitigation options must be developed prior to permit issuance. EPA recommends that Phase II be planned prior to permit issuance to ensure that wetland and stream impacts are not missed.	COE02, COOP01
3033	The application lacks a description of cumulative effects to the aquatic resources within the watersheds except as they apply to wildlife corridors (Section 12.1.2.3). Cumulative Wetland Impacts (Section 5.3) is included in the March 1, 2013 Wetland Data Package V.7, but it is not referenced in the application. It is not clear if this analysis includes recently proposed projects, as it seems to be missing projects in the iron range (e.g., MINNTAC and UTAC). The cumulative effect assessment in the application should include the most recent and comprehensive information.	COE07, COOP01
3034	Indirect impacts are not included in the cumulative impacts assessment for wetlands in the Wetlands Data Package V. 7. All adverse impacts to aquatic resources should be considered in this assessment.	COE07, COOP01
3035	The analysis of cumulative effects in the Wetland Data Package V.7 evaluates the percentage loss of all wetland types. Many of the wetlands proposed to be impacted at the Polymet site are high quality bog and forested resources, and indirect impacts of mining often include wetland type changes due to changes in hydrology. The cumulative loss of different wetland types should also be evaluated.	COE07, COOP01
3036	The mitigation ratios proposed in the application conform to the conditions included in the Corps' May 29, 2013 Memorandum: Application of the Federal Mitigation Rule and St. Paul District Policy Guidance on Compensatory Mitigation- Compensation Ratios for Loss of Wetlands/Aquatic Resources. EPA agrees that the mitigation ratios proposed in the Corps' Memorandum were reasonable.	COE12, COOP01
3037	One concern that remains is that no compensatory mitigation plan exists for indirect impacts to wetlands and streams. Table 11-1 of the application indicates that more than 7,300 acres of wetland would be potentially impacted by the proposed project. Because in-watershed mitigation is so difficult to find, mitigation options for indirect impacts must be discussed in the application.	COE02, COOP01
3038	EPA remains concerned that a majority of the compensatory mitigation for impacted wetlands will occur outside the St. Louis River and Lake Superior Watersheds. This constitutes a permanent loss of aquatic resources within these watersheds. EPA understands that it is difficult to find in-watershed wetland mitigation opportunities, but the soon to be implemented Northeast Minnesota Wetland Mitigation Strategy may support the Corps and permit applicants to better implement a watershed approach to mitigation. Once implemented, EPA recommends that the strategy be used to find additional wetland mitigation sites within the St. Louis and Lake Superior Watersheds to compensate for indirect wetland impacts at the Polymet Site.	COE13, COOP01
<b>Sender Name (Submission ID)</b> USFWS (42983)		

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USFWS (42983)	
3483	The Fish and Wildlife Service (FWS) believes the northern long-eared bat ( <i>Myotis septentrionalis</i> ) is not adequately addressed in the SDEIS, as it is only listed as a Regional Forester Sensitive Species. Given the status for state and federal listing, the anticipated start date of the proposed project, and its potential for significant environmental impacts, it would be appropriate to discuss the northern long-eared bat under all “Federally and State-Listed Species and Species of Special Concern” subsections in the SDEIS in much greater detail.	WI01
3485	The Cumulative Impacts section of the document fails to address the overall cumulative impacts associated with the 28 prospecting permits represented in the Bureau of Land Management’s (BLM) September 2012, Record of Decision (ROD) for Federal Hardrock Mineral Prospecting Permits, U.S.Department of Agriculture, Superior National Forest.Potential impacts associated with the 2012 ROD on Mineral Prospecting meet the criteria of “reasonably foreseeable future actions” since the prospecting permits are all located on the Superior National Forest and could contribute direct or indirect impacts in the region.	CU02, CU08
3486	In addition to the 20 projects considered in the Cumulative Effects analysis, some effort should be made to consider the cumulative effects of the 11 speculative projects that are in the early stages of development...The NorthMet mine could be considered a catalyst for other mining operations which could lead to much greater impacts to the regional ecosystem.	CU02
3487	The temporary nature of the projected 500 direct jobs created during construction and additional 631 “operations-phase” jobs may result in a substantial need for temporary lodging that could impact to Voyageurs-area visitors in the form of hotel or motel room shortages.	EDIT01
3488	Finally, the major differences of opinion between the lead agencies and the Bands, the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and 1854 Treaty Authority regarding the effects of the proposed actions should be resolved before any permits are issued.	EDIT01
3489	Mitigation of a larger number of smaller wetlands in the direct area should not be dismissed solely on whether the company deems it economically feasible to do so, especially if those mitigation options make more sense environmentally. The SDEIS states the majority of wetlands that would be impacted would be “difficult to replace.” Alternatives for avoiding impacts to wetlands that are difficult to replace should be considered.	WET03, WET05, WET20
3491	The GIS buffer zones for determining indirect wetland effects cut off at the border to the existing Northshore Mine, even though the wetlands are continual across that border. Impacts to the entire wetland body should be covered in the Cumulative Impacts section	WET08, WET18
3492	The area of potential effects should be larger than the two watersheds that are directly impacted.	WET18
3493	The cumulative impact analysis for wetlands does not constitute an analysis of impacts. It is strictly comparing wetland acreage between pre-settlement (which is based on imprecise estimates), current, and proposed conditions. We recommend using accurate numbers for wetland acres lost in the area over the past few decades instead of using an unknown “pre-settlement” number as the baseline. In addition, wetland impact is more than just acres lost or gained. There needs to be a true analysis of impacts by wetland type and value, and include indirect effects, as is done in the Wetlands section of the SDEIS.	WET18
3495	This section needs maps to illustrate the location and extent of Minnesota Biological Survey (MBS) Sites of High Biodiversity Significance in order to support the claim that the number of sites within the project area is small, and to show how much of the 100 Mile Swamp and Upper Partridge River Sites will be impacted.	EDIT01
3496	Stating that less than 1 percent of the state’s Sites of High Biodiversity Significance would be affected is misleading because not all of these sites are of the same type.	EDIT01
3497	The Indirect Effects discussion of the NorthMet project only talks about dust. The discussion should include effects from hydrologic changes, habitat fragmentation, microclimate, loss of fungal associates, erosion, and exotic species.	VEG07

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	USFWS (42983)	
3498	The SDEIS acknowledges the disturbance of 1718.6 acres of high diversity significance and 698.2 acres of imperiled-vulnerable or vulnerable native plant communities. Deliberately and knowingly taking/destroying populations of state-listed Endangered, Threatened, or Special Concern plant species should not be an acceptable option. Having PolyMet purchase lands with these populations to give to the State raises a question of conflict of interest since the State is the entity proposing this action.	VEG01, VEG02
3499	There are 12 known populations of state-endangered <i>Caltha natans</i> in Minnesota. One of those populations is in Voyageurs. Destroying one of the 12 known populations will put added pressure on Voyageurs to protect any remaining populations.	VEG01
3500	The SDEIS states that non-native species will be used in the reclamation of the Mine Site and Plant Site...Many of the species listed for reclamation have proven to be problematic invasive species. This is not an acceptable practice. The emphasis on reclamation should be on ecological quality, not on speed of getting plants growing.	VEG05
3501	The cumulative impact area is unclear and seems to alternate between use of the Nashwauk Uplands/Laurentian Uplands and the Mesabi Iron Range.	VEG08
3502	The cumulative impact analysis for vegetation, like the wetlands analysis, is weak since the Geographic Information System (GIS) analysis only looked at changes in habitat type. Cumulative impacts should include changes in acreage of Sites of High Biological Diversity and vulnerable communities, loss of threatened plant species, increase in exotic plants, and other vegetation impacts. Those are the true cumulative impacts to the area.	VEG08
3506	The lead agencies should defer to the judgment of the Bands about potential impacts to traditional cultural properties even if the precise locations and significance are not shared with non-Natives.	CR05, CR06
3508	Historic properties such as the Spring Lake Mine Sugarbush are rare, have cultural and historical significance to the entire region, and have research value for understanding Ojibwe land use in other areas, including Voyageurs. Potential impacts to the Sugarbush, beyond fugitive dust deposition, should also be addressed.	CR05
3509	Trail systems such as the Beaver Bay-Lake Vermilion Trail historically connected communities, including connecting Native people who had off-reservation allotments in Voyageurs. Loss of parts of these trail systems may compromise the ability to understand historic Ojibwe land use in the entire region.	CR01, CR02, CR03, CR05, CR06
3510	We would suggest the lead agencies consider that the geographic feature known as the Misabe Widjiu (Laurentian Divide) could be significant not only to Native Americans but significant to the identity of the Region. Further permanent alteration of the Misabe Widjiu could be considered a loss to all Minnesotans.	CR05
3512	When referring to Canada lynx ( <i>Lynx canadensis</i> ), page 5-365 the SDEIS states that, "Although the NorthMet Project Proposed Action would result in a reduction and fragmentation of lynx habitat at the Mine Site, little to no effect on statewide lynx populations would occur as it is unlikely that an individual lynx or pair of lynx would be affected by the habitat decrease." This is unclear and misleading. Our suggested rewording of this is, "Although the NorthMet Project Proposed Action would result in a reduction and fragmentation of lynx habitat at the Mine Site, little to no effect on statewide lynx populations would occur even if individual lynx are affected by the habitat decrease."	EDIT01
3513	FWS also recommends adding the northern long-eared bat to Table 4.2.5-1 identifying Key Habitat, Cover Types, and Associated Species in the Nashwauk and Laurentian Uplands Subsections at the NorthMet Project Area as well as Section 5.2.5.2.1 Federally Listed Species.	WI01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	USFWS (42983)	
3517	The Draft BA also acknowledges that the Tower/Soudan Underground Mine State Park is an important hibernacula for the species ( <i>Myotis septentrionalis</i> ) and is located approximately 15 miles northwest of the project area. Given the proximity to known occurrences and available suitable habitat, the species is likely to be present at the Mine Site, Plant Site and Transportation and Utility Corridor. In the second paragraph of Section 5.2.5.2.1, please assure that the northern long-eared bat is included.	WI01, WI11
3518	Potential impacts to the northern long-eared bat as a result of this project should be addressed in this SDEIS. This should include, but not be limited to, direct habitat loss of all forested habitat within the project area, potential for Take of the species if any trees are cleared during the Summer Roost Season of April 1st through September 30th, noise disturbance and the potential for bioaccumulation of methyl-mercury or other contaminants.	WI01, WI02, WI04, WI05
3520	The Northern long-eared bat should also be addressed when looking at proposed non-federal exchange lands and added to Tables 4.3.5-2 and 4.3.5-5 since bats were observed at both Tract 1 and Tract 5, but not identified by species. Clarification is needed for Table 4.3.5-5 since “northern myotis” is identified in the table but not mentioned in the textual description for Tract 2.	WI01
3521	Table 4.3.5-4 identifies eastern pipistrelle as an associated wildlife species, but not the northern long-eared bat. FWS recommend the addition of this species, especially if bats were observed on site but not identified to species.	WI01
3524	With respect to Trust Resources that will continue to have direct access to open water sources at the mine site (mainly migratory birds and northern long-eared bat), the SDEIS should clearly state the anticipated water quality of the West and East-Central Pit Lakes, potential for bioaccumulation of methyl-mercury from aquatic invertebrates and other food chain pathways, and layout proposed measures to minimize or mitigate for any impacts to Trust Resources throughout the life of the mine and into reclamation phase. Of particular importance is the water quality of the wetland that will be established over the backfilled East-Central Pit after year 20, at which point would become an intended attractant to Trust Resources. It is unclear to FWS whether the SDEIS fully accounts for all sources of mercury. Supporting information for assumptions of mercury concentration, leaching and absorption should be provided and all materials associated with the proposed pit ponds should be characterized. Lead agencies should also reevaluate the need for containment and adequate treatment of the Overburden Storage Laydown Area, as this may be another significant source of mercury and other contaminants to the ecosystem.	AQ10, WR058, WR088, WR109, WR167
3525	While the air quality analysis appeared to be thorough, we strongly suggest NPS air quality specialists carefully review and confirm NorthMet’s pollutant source data, modeling methodologies, and modeling results.	AIR08
3623	It is difficult to comment on wetland mitigation because the direct mitigation ratio has not been determined and the indirect mitigation will be determined by USACE and MDNR at the time of permit.	WET01, WET04
3624	In addition, the mitigation sites proposed for this project are currently being developed and have not yet been permitted by the USACE. Suitability of these sites as mitigation for proposed wetland impacts cannot be determined at this time.	WET06
<b>Sender Name (Submission ID)</b>	USW Local6115 (42924)	
9667	Mining these [precious metal] deposits in a responsible way represents the largest economic opportunity for the NE MN region and the state of MN since iron ore was discovered here, bringing construction and operation jobs that pay enough to support families, provide high quality health care and the retirement security of a pension.	SO10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> USW Local6115 (42924)		
9668	If these metals are not mined in Minnesota, they will continue to be mined in places around the world that have little to no environmental regulations whatsoever, causing massive pollution to the earth...[and] they will be mined in places around the world that offer no safety protections to workers, where children are routinely put in danger by being forced to work in these unsafe conditions, and where workers are exploited by being paid inhumane wages that do not allow them to feed their families,	SO10
9670	Mining these metals in Minnesota is the green option because we have a long history of mining responsibly, and we have the most protective environmental regulations in the world for permitting new mines and the alternative to mining in Minnesota is to mine in places that have none of our safeguards.	NEPA05
9671	Minnesota taxpayers are fully protected by the toughest financial assurance laws in the nation, laws that leave control over this process completely in the hands of the experts at the DNR, and in which the companies are faced with one decision—either accept the conditions of financial assurance or do not accept and receive no permit.	FIN17
9672	The United Steelworkers Local 6115 supports iron ore, copper, nickel and other precious metal mining projects in Northeast Minnesota as long as the rigorous and nation-leading process in our state of permitting new mines is followed, that the Polymet Corporation allows union card check/neutrality at their proposed facility, and our union has faith that the experts and professionals in our state and federal agencies, most of whom are proud members of AFSCME or MAPE, will carry out this process and ultimately determine whether or not projects can meet our tough environmental and financial assurance standards.	NEPA16
<b>Sender Name (Submission ID)</b> UTU Minnesota: (42987)		
8833	On behalf of our 1200 active and many retired railroad workers in Minnesota, we support the acceptance of the proposed Polymet Mining Environmental Impact Statement without any further delay.	SO10
<b>Sender Name (Submission ID)</b> Valerie Mellerop (33877)		
13089	Wisconsinites consider canoeing in the Boundary Waters area to be the pinnacle of recreation. This pristine wilderness is the last frontier for midwesterners to explore. It should be protected at all costs, as there will never be another.	WILD02
<b>Sender Name (Submission ID)</b> Valerie Murphy (21181)		
1946	Even if it could be cleaned up, the clean would be required for hundreds of years, at enormous expense, an expense that may or may not be paid for my the mining company.	FIN01
1947	I believe no potential number of jobs is worth destroying this priceless, beautiful area located near the pristine BWCA. Once it's gone, it's gone! It is not worth it.	SO01
<b>Sender Name (Submission ID)</b> Valerie Stoehr (45005)		
11168	I am concerned about the lack of return on investment given that the cost of environmental safety hazards may dwarf the economic benefits.	SO01
11171	There is no consideration of alternate methods (like underground mine, putting liners under the waste dumps), no guarantees of who pays for routine monitoring/treatment after mine closes—and no consideration of spills, etc.	FIN01, FIN05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Valerie Stoehr (45005)		
11174	The computer model for treating wastes and handling pollution is based on poor data and requires revision.	WR003, WR063, WR071, WR143, WR146, WR147, WR189
<b>Sender Name (Submission ID)</b> Vance Anderson (57336)		
18447	I support the PolyMet mining and believe them that they will build and operate a mine that complies with all regulations and protects the environment. I trust the multiple state and federal agencies involved in preparing the document. ... The SDEIS demonstrates that PolyMet can develop this resource in a sustainable manner and there will be logical engineered solutions proposed for potential impacts. I am impressed by the extraordinary precautions proposed by PolyMet, such as a reverse osmosis, and look forward to having them as a new neighbor.	NEPA16
18450	The SDEIS shows that mining, recreation, tourism, and other land and natural resources can be -- can co-exist.	LU07
18458	PolyMet has demonstrated they can produce these critical metals while following Minnesota's strict environmental requirements to protect air, water and land.	PER34
18460	If we are to maintain our modern way of living, we need to continue to find and extract these metals. And just as well we do it in Minnesota, where we find them in abundance, where there are sound regulations in place and where we have a ready and available workforce. PolyMet will produce these metals in an environmentally sound way and generate significant economic activity expanding and diversifying our mining economy.	SO10
<b>Sender Name (Submission ID)</b> Vern Simula (16354)		
1511	it is incumbent upon the mining company to prove unequivocally PRIOR to mining operations that that pollution standards will not be violated.	PER06
1514	The Northmet SDEIS, with its probabilistic/statistical modeling, does not satisfy this common sense standard [unequivocal proof of no pollution].	WR189
1515	The SDEIS [states] that water quality problems [are] likely to occur [but goes on to say] "dismissive" comment[s about mitigation.] I demand that the company declare their commitment that "steps WILL be taken" to not only reduce ... but to mitigate the problem such that water quality criteria are, indeed, met.	PD05, WR130
1518	The SDEIS contains no detailing of what these "adaptive water management measures" or "steps" would consist of. Additionally, and more importantly, there is no assessment as to the efficacy of such adaptive measures.	PD22, WR130
2301	THE ECONOMIC CONTRIBUTIONS that such a proposed twenty year mining project supposedly offers MUST BE CONSIDERED IRRELEVANT, out-of-bounds, for the considerations before us at this hearing.	SO01
2301	THE ECONOMIC CONTRIBUTIONS that such a proposed twenty year mining project supposedly offers MUST BE CONSIDERED IRRELEVANT, out-of-bounds, for the considerations before us at this hearing.	SO01
2302	potential ECONOMIC LIABILITIES are legitimate, for the SDEIS suggests a high probability that taxpayers may need to assume liability for environmental cleanup. I refer to the centuries-long possibility of water treatment where the adequacy of financial assurances are impossible to calculate at the point in time.	FIN05, FIN10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Vern Simula (16354)	
2302	potential ECONOMIC LIABILITIES are legitimate, for the SDEIS suggests a high probability that taxpayers may need to assume liability for environmental cleanup. I refer to the centuries-long possibility of water treatment where the adequacy of financial assurances are impossible to calculate at the point in time.	FIN08, FIN01
2303	To this question [is the proposed mining project environmentally safe?], the published SDEIS, itself, is ambivalent. It is not conclusive, for Chapter 8 contains a litany of “MAJOR DIFFERENCES OF OPINION” (MDOs).	PD01
2303	To this question [is the proposed mining project environmentally safe?], the published SDEIS, itself, is ambivalent. It is not conclusive, for Chapter 8 contains a litany of “MAJOR DIFFERENCES OF OPINION” (MDOs).	PD01
2378	In chapter 8 it contains a litany of major differences of opinion. If indeed there are doubts or disagreements, unanswered questions, or probability that if one of the criteria of the safeguards cannot be met then the only reasonable, prudent decision for our regulatory agencies is to invoke what I call a precautionary principle	NEPA12
7390	[Many] of my neighbors, especially younger workers, ... are desperate for any job in our Iron Range communities. ...But the need for such relatively short term jobs (or more precisely, THE ECONOMIC CONTRIBUTIONS that such a proposed twenty year mining project supposedly offers MUST BE CONSIDERED IRRELEVANT, out-of-bounds, for the considerations before us at this hearing.	SO02
7390	[Many] of my neighbors, especially younger workers, ... are desperate for any job in our Iron Range communities. ...But the need for such relatively short term jobs (or more precisely, THE ECONOMIC CONTRIBUTIONS that such a proposed twenty year mining project supposedly offers MUST BE CONSIDERED IRRELEVANT, out-of-bounds, for the considerations before us at this hearing.	SO02
7392	The FUNDAMENTAL ISSUE is the question of whether the proposed mining project CAN BE DONE SAFELY without harm to the natural environment, and to human health.	HU03
7392	The FUNDAMENTAL ISSUE is the question of whether the proposed mining project CAN BE DONE SAFELY without harm to the natural environment, and to human health.	HU03
7393	...the broader public is being misled ...that the proposed mining project [will be] environmentally safe, and ... “generate hundreds of jobs” for LOCAL workers.	SO02
7393	...the broader public is being misled ...that the proposed mining project [will be] environmentally safe, and ... “generate hundreds of jobs” for LOCAL workers.	SO02
7394	If, indeed, there are doubts, disagreement, unanswered questions, or a probability that environmental criteria and safeguards cannot be met, then the only reasonable, prudent decision for you, as representatives of our regulatory agencies is to INVOKE THE PRECAUTIONARY PRINCIPLE.	PER35
7394	If, indeed, there are doubts, disagreement, unanswered questions, or a probability that environmental criteria and safeguards cannot be met, then the only reasonable, prudent decision for you, as representatives of our regulatory agencies is to INVOKE THE PRECAUTIONARY PRINCIPLE.	PER35
7395	I simply ask that you acknowledge that there is not anything close to a scientific consensus on the environmental safety of the propose Polymet mining venture. I ask you to invoke a “no action” option based upon the precautionary principle.	NEPA15
7395	I simply ask that you acknowledge that there is not anything close to a scientific consensus on the environmental safety of the propose Polymet mining venture. I ask you to invoke a “no action” option based upon the precautionary principle.	NEPA15

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Vern Simula (16354)		
12190	There has been tremendous political pressure urging approval of the SDEIS, because the Northmet Project will create "jobs" for the Iron Range. The pressure is so clamorous that leads one to think that the "Range" is solely dependent upon this project for additional jobs. Not so. The Iron Range Resources and Rehabilitation Board (IRRRB) just in the last three years has, according to their report, created 1,894 permanent jobs, supplemented by 2,800 construction jobs, jobs that do not contribute to potential serious environmental hazards.	SO02
12196	Numerous statements in Chapters 5 and 8 of the SDEIS "admit" that waterquality violations will likely occur. These statements are followed with therather "flippant" comment that in the event of such occurrences, measures willbe taken to remediate the violation. There is no description or evaluation of the efficacy of such remedial measures. This is unacceptable.	WR130
13903	But the need for such short-term jobs, or more precisely the asserted economic contributions they propose will be provided, the 20 years, must be considered irrelevant for the purpose of this hearing. That issue is out of bounds. Not germane. Because the fundamental issue here is what is at the proposed mining project can be done safely without harm to the natural environments or to human health.	SO01
13904	And also, even the EIS itself is not conclusive. In chapter 8 it contains a litany of major differences of opinion. If indeed there are doubts or disagreements, unanswered questions, or probability that if one of the criteria of the safeguards cannot be met then the only reasonable, prudent decision for our regulatory agencies is to invoke what I call a precautionary principle.	NEPA12
16750	The pressure is so clamorous that leads one to think that the "Range" is solely dependent upon this project for additional jobs. Not so!	SO06
16751	Numerous statements in Chapters 5 and 8 of the SDEIS "admit" that water quality violations will likely occur. These statements are followed with the rather "flippant" comment that in the event of such occurrences, measures will be taken to remediate the violation. There is no description or evaluation of the efficacy of such remedial measures.	WR130
<b>Sender Name (Submission ID)</b> Verna Alt (18477)		
15640	the PolyMet open-pit sulfide mine plan would have unacceptable environmental impacts on surface and ground water quality for hundreds of years, if not forever... This project would violate water quality standards for generations to come.	WR038
15641	In my opinion, the PolyMet SDEIS and the PolyMet sulfide mine plan still deserve a failing grade and both should be rejected. Recent news of internal DNR documents showing that base flow at the mine site was seriously underestimated confirms my opinion. Neither the SDEIS nor the sulfide mine project are based on good science.	WR003
15642	The PolyMet SDEIS relies on a number of improper and unsupported assumptions to minimize the threats of the sulfide mine plan and wastes on drinking water, surface water, wild rice, mercury contamination of fish and human health.	HU01, WR041, WR115, WR189
15644	The SDEIS must be redone to calculate whether PolyMet's seepage would violate water quality standards using the closest location where groundwater seeps would reach wetlands. Both the mine site and tailings site have high pollution levels in surficial groundwater seeps and have wetlands far closer to pollution sources than the "evaluation locations" used in the SDEIS.	WET12
15645	The SDEIS must be redone to use a reasonable range of probabilities for the collection of polluted seepage from the Category 1 waste rock pile and the tailings piles, rather than just choosing one very optimistic number. The assumption that more than 99% of total seepage will be captured from the tailings basin (SDEIS, p. 5-159) has no support in the real world, yet allows PolyMet to minimize threats that wild rice, fish and human health will be harmed by tailings basin discharge.	WR017

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Verna Alt (18477)		
15646	The SDEIS must be redone using accurate and complete predictions about effects on pollution seeps of fault lines and fractures under the mine site, the tailings basin and the proposed HRF waste dump. Geological survey maps and PolyMet's own reports for the Canada stock exchange reveal significant faults and fractures.	WR012
15647	The PolyMet SDEIS is not a fair and scientific analysis of water pollution threats. It is a biased document that relies on unjustified assumptions, conceals important facts, and won't allow members of the public to understand risks of accidents, failures or even routine violations of water quality standards.	WR189, WR202
<b>Sender Name (Submission ID)</b> Vernon Baker (46988)		
10890	I believe the environmental review process has been sound and thorough. The state and federal regulators will ensure that PolyMet's project design, and its controls and measures will address potential environmental impacts and will meet all applicable state and federal regulations.	NEPA16
10891	It is commendable that the modeling completed in the SDEIS is so thorough that it addresses the slow, minimal flow of water for such a period of time. It also shows the project will still meet water quality standards even that far out – all the more reason to support it. This does NOT mean that the mine or processing facility will need treatment for that long. This model demonstrates that PolyMet's plans comply with Minnesota's laws – some of the strictest environmental regulations in the country.	WR190
10892	Minnesota is home to a world-class deposit of copper, nickel, platinum, palladium and gold. This is an economic opportunity right below our feet that will benefit the state's economy for future generations. PolyMet will produce these metals in an environmentally sound way and generate significant economic activity, expanding and diversifying our economy and creating hundreds of jobs that can support families and sustain communities. ... This project would mean 2 million construction hours, 360 full-time mining jobs and more than 600 related jobs – jobs that our state needs.	SO10
10893	Companies like PolyMet that are complying with all state and federal regulations should be allowed to obtain the necessary permits to produce the metals our modern world demands.	PER34
<b>Sender Name (Submission ID)</b> Veronica Erickson (54179)		
16416	I don't think you should mine in the area of the boundary waters. The sulfur in the rock mixed with air creates sulfuric acid. Acid kills most aquatic life. This means no more fishing.	AQ08
16418	Many people go to the boundary waters for peace and quiet, but the drill noise along is hard on the ears.	N02
16419	This area has been protected since 1989, and if you plan to mine for 20 years, it will do damage to our water for much longer than that. The contamination from this mine will threaten all water bodies connected to it. The PH of the water will be 4, 3, 2 even 1. Aquatic life dies below a PH of 4.	WR001, WR113, WR115
<b>Sender Name (Submission ID)</b> Veronica Smith (57344)		
18416	I am a band member. And my concern is, of course, is the waters and the streams and the lakes that come down from where the mines are going to be.	WR111
18417	What I have the most concern about is the wild rice. Our Manoomin -- the creator has given us manoomin.	CR01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Vicki Andrews (45098)		
7563	This plan is bad for the environment, a potential disaster to Minnesota communities, residents, land and water.	PD22
7566	PolyMet's proposed location increases risks of pollution and harm to public health....	HU03
7567	[PolyMet] would impact irreplaceable high value wetlands in the St. Louis River watershed- destroying 913 acres and indirectly affecting another 7,228 acres.	WET24
7569	Tailings will be dumped in an unlined tailing basin. It is almost certain to result in contamination of surface and/or ground water with sulfates and toxic metals.	WR018, WR105
<b>Sender Name (Submission ID)</b> Vicki Cebulla (15346)		
495	There currently is no way to mine the copper without contaminating the water. Scientists would be monitoring the groundwater for thousands of years after the mining is over. The contamination would spread into Lake Superior.	WR023, WR195
499	Locals wouldn't be able to turn on their faucets and drink their well water. ... the water is going to be affected for thousands of years	WR041, WR195
502	the companies just don't care about who ends up paying for this	SO02
<b>Sender Name (Submission ID)</b> Vicki Effertz (10216)		
372	Sulfide ore mines providing employment is a RELATIVELY SHORT TERM FIX of a problem.Sulfide ore mines polluting water and wilderness is LONG TERM DESTRUCTION of a precious MN resource.	SO01, WR115
1441	Sulfide ore mines polluting water and wilderness is LONG TERM DESTRUCTION of a precious MN resource.	LU06
<b>Sender Name (Submission ID)</b> Vicki Ericson (57972)		
19833	I have concerns about the runoff from the holding ponds to the Embarrass River watershed & the 100 mile swamp. Those regions [drain to] the Boundary Waters.	WR080
<b>Sender Name (Submission ID)</b> Vicki M Gustafson (57212)		
17141	This mine could create more illnesses that could lead to death. Anything toxic will destroy life.	HU03
<b>Sender Name (Submission ID)</b> Vicki Sanville (44237)		
11954	What can possibly keep the mercury contamination from eventually moving into the groundwater and causing major changes in the quality of the groundwater involving a huge part of our natural world.	MERC16, MERC21
14882	We should understand by now that the resulting damage to our environment does not let us even consider such an effort.	SO01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Vicki Sanville (44237)		
14923	I would like to be included in the mailings or electronic distribution of the record. I included my name, Vicki Sanville, and would now like to submit my address and e-mail contact which is as following: Vicki Sanville 1501 Vermilion Road Duluth, MN 55812 email address: vickisanville@yahoo..com	RFI01
<b>Sender Name (Submission ID)</b> Vicki Stute (42758)		
14461	We believe this project will have important positive impacts not only on the range, but across Minnesota. Our state has a proud mining tradition that has created thousands of jobs and billions of dollars in economic activity for its residents and this project is an important continuation of that heritage.	SO10
<b>Sender Name (Submission ID)</b> Vicky Wicks (5978)		
1959	20 years of jobs for 500 years of pollution. How short sighted are we to even consider this.	SO01
<b>Sender Name (Submission ID)</b> Victor Walter (40812)		
10130	Any degradation of our water will be a slow death for our state. Please do not mine for copper in Northern Minnesota.	WR195
14012	We don't need more mining jobs in northern Minnesota. Our tourism will be worth much more in the long run for our states financial security.	SO02
<b>Sender Name (Submission ID)</b> Victoria Bloch (42454)		
15265	Lake Superior is a precious national resource, as is every significant body of fresh water in our country. With fresh water at a growing premium, any threat to water represents a threat to our economy, our citizens' health, and our nation.	WR111
<b>Sender Name (Submission ID)</b> Victoria Oakey (14370)		
151	the SDEIS is insufficient and should not be approved because it is lacking vital information about long-term water treatment and how it will be paid for	WR035, WR128, WR143
152	sulfates and toxic metals such as mercury, copper and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream.	AQ05
153	Birds that depend on fish and other aquatic organisms for food will be affected, including Belted Kingfishers, Hooded Mergansers, Common Terns and Common Loons. In addition, four bird species of greatest conservation need will likely lose suitable habitat if the mine is developed as proposed: Black-backed Woodpecker, Spruce Grouse, Northern Goshawk and Boreal Owl.	WI01, WI02
<b>Sender Name (Submission ID)</b> Victoria Singer (40878)		
13962	If our landfills were mined for precious metals, and manufacturers pressed to create more from recycled products, there would be no need to open new mines. There would be no need to risk the health and home of all living things.	NEPA06
<b>Sender Name (Submission ID)</b> Victoria Turke (19527)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Victoria Turke (19527)		
13439	Computer models show that the water from the mine and processing plant will be contaminated with toxic metals and sulfate...I am concerned that PolyMet will not be able to capture and treat all of the contaminated water before it reaches the St. Louis River and Lake Superior.	WR017, WR018
13440	How will PolyMet be able to treat the polluted water for 500 years? How will they pay for it?	FIN01
13684	The SDEIS uses a small bit of data from 1984 to address the water flowage and its impact concerning the issue of how much and how fast our groundwater, streams and lakes will be polluted. The report is using data that does not reflect what the conditions actually are at the proposed site.	WR003
13685	This report does not adequately answer the question of how this perpetual need for taking care of the polluted waters is to be paid for, and when questioned, they say those details will be addressed during the permitting process.	FIN01
<b>Sender Name (Submission ID)</b> Vincent Graziano (48718)		
12817	Their own simulations say pollution for 500-years, in other words FOREVER.	WR035
16773	I would like for once the State and DNR actually protect the natural resources that they are supposed to protect and not just hand over our future to corporations and especially foreign corporations.	PD01
<b>Sender Name (Submission ID)</b> Vincent W. King (45163)		
8483	It is simply ludicrous to suggest that any amount of human engineering, or any amount of money, can prevent a disaster from occurring, resulting in the acid mine drainage entering the surface and underground waters in the area.	WR001, WR037, WR128
8487	he short-term economic gains from sulfide mining are far outweighed by the long-term risk.	SO01
<b>Sender Name (Submission ID)</b> Virgil Boelland (11535)		
2485	Has this mining company successfully done what they propose to do to Minnesota in any other place, anywhere?	PD23
2485	Has this mining company successfully done what they propose to do to Minnesota in any other place, anywhere?	PD23
<b>Sender Name (Submission ID)</b> Virgil Sohm (17825)		
13214	I am an enrolled member of the Lake Superior Band of Ojibwe at Nett Lake Reservation... Culturally this is our medicinal,hunting and wild rice harvesting territory. The Federal Government and State government has a fiduciary responsibility to honor the rights our grandfathers were promised in the Treaty of 1854.	CR01
<b>Sender Name (Submission ID)</b> Virginia Danfelt (36340)		
3664	My main concerns are that the document does not adequately address the permanent water pollution and lack of adequate planning for prevention and clean up of accidental failures and mishaps should polluting materials be released.	WR130, WR131
3749	The financial assurance to cover these potentially expensive errors is not planned for adequately.	FIN05

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Virginia Danfelt (36340)		
3751	The health of local residents, which include animal populations, are also at risk.	WI13
<b>Sender Name (Submission ID)</b> Virginia Nichols (57444)		
19512	This plan is short sighted, and will irrefutably negatively affect the waters that Minnesota is famous for.	WR195
<b>Sender Name (Submission ID)</b> Virginia Rosenbaum (35315)		
13090	Lake Superior is connected to the other 4 Great Lakes; together they hold one-fifth of the world's fresh water supply. It would be CRIMINAL to allow a corporation to risk polluting this vital resource, only for a business to make a short-term profit.	SO01
13245	Millions of people rely on the Great Lakes for their drinking water, and there is also a large (billions of dollars) fishing industry that requires clean water.	SO02
<b>Sender Name (Submission ID)</b> Voyageurs National Park Association (54910)		
18911	The SDEIS identifies the Twin Metals mining project as a speculative action, and as a result, Twin Metals is not considered as a cumulative action in the cumulative effects [section]...Currently available information demonstrates that both government agencies and private organizations are considering the Twin Metals project in their long-range planning. [Therefore,] Twin Metals is a reasonably foreseeable action that must be considered in the cumulative impacts statement.	CU02
18912	if the proposed NorthMet project becomes operational NorthMet could set precedent for future mining operations, like the proposed Twin Metals project.	CU04
18914	Water is especially vulnerable to incremental effects of pollution- in this instance- acid mine drainage. If the proposed NorthMet project comes to fruition, the water modeling, treatment processes, and assurances will set a precedent for future projects	WR198
18916	Given the complexity and length of the SDEIS, 90 days was not a reasonable time period for VNPA or other concerned citizens and stakeholders to comprehensively review and respond to the SDEIS.	NEPA07
18917	The FEIS must distinctly evaluate how long active water treatment will be necessary to deal with pollution after this mine is closed...The lead agencies must re-run the water analysis to provide an accurate estimate.	WR036
18918	The public deserves to have a concrete understanding of how long active treatment will be needed and the risks and potential costs to taxpayers associated with that treatment.	FIN01, FIN10
18919	If it is not possible to design preventative measures [i.e., for water quality] into the mine, then the mine should not be permitted to operate.	PER03
18920	We strongly believe the financial risk to the public involved with permitting a mine that calls for treatment of water in perpetuity in a water-rich environment like northern Minnesota sets an irresponsible stewardship standard.	FIN10
18921	[The SDEIS fails] to provide a means for cleanup in the event of a major leak as well as any details for financial assurance for this cleanup. A lack of financial assurance burdens the taxpayers who would then be liable for cleanup costs. With the centuries of proposed treatment, it burdens unascertainable future generations of taxpayers who view the mine's operational life as a distant history.	FIN01, FIN10

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Voyageurs National Park Association (54910)	
18922	if the permitting agencies do decide to permit long-term water treatment, then at a minimum, the costs and financial assurance vehicles should be identified up front before the FEIS and the permitting process is initiated.	FIN05, FIN08, FIN13
18923	The EIS process is the time the public is supposed to have to review the project as a whole. The omission of how PolyMet intends to financially provide for potential accidents and spills denies the public information of an important element we wish to take into consideration in this action.	NEPA06
18924	The SDEIS describes a mine and a processing facility that will require centuries of water treatment after its 20 year operational life. This in direct violation of this statute which requires that the site be maintenance-free at its closure.	PER04
18925	The NorthMet project will be contributing a new source of air pollution in an already degraded area.	AIR13
18926	The cumulative visibility analysis (Section 6.2.3.8.7) is out of date and should be updated (SDEIS at 6-78 - 6-86). It fails to account for the Federal Implementation Plan issued by the U.S. Environmental Protection Agency in 2013 for emissions from taconite facilities, and does not include available visibility data from 2011 for nearby Class I areas.	AIR08
18927	We request analysis of the cumulative impact on moose from the PolyMet project and other habitat disruptions.	WI01, WI02
18928	The Poly Met mine plan fails to analyze the cumulative impact on the Canada lynx from the proposal and other nearby projects. It also fails to correctly identify the Canada lynx as a species listed of "Special Concern." The FEIS should include ways to mitigate the risk to lynx from road traffic and ways to restore its habitat after construction.	WI01, WI02
18929	Mitigation of a larger number of smaller wetlands in the direct area should not be dismissed solely on whether the company deems it economically feasible to do so if those mitigations make more sense environmentally. The SDEIS states the majority of wetlands that would be impacted would be "difficult to replace." Alternatives for avoiding impacts to wetlands that are difficult to replace should be considered.	WET03, WET05, WET20
18930	The GIS buffer zones for determining indirect wetland effects cuts off at the border to the existing Northshore Mine, even though the wetlands are continuous across that border.	WET19
18931	There should be existing hard numbers on wetland acres lost in the area over the past few decades instead of using an unknown "pre-settlement" number as the baseline	WET18
18932	Wetland impact is more than just acres lost or gained. There needs to be a true analysis of impacts by wetland type and value and include indirect effects, just like in the Wetlands section of the SDEIS.	WET14
18933	[The Vegetation] section needs maps to illustrate the location and extent of Minnesota Biological Survey (MBS) Sites of High Biodiversity Significance in order to support the claim that the numbers of sites within the project area is small, and to show how much of the 100 Mile Swamp and Upper Partridge River Sites will be impacted.	VEG02
18934	Stating that less than 1 percent of the state's Sites of High Biodiversity Significance would be affected is misleading because not all of these sites are of the same type.	VEG02
18935	The Indirect Effects discussion of the NorthMet project only talks about dust. The discussion should include effects from hydrologic changes, habitat fragmentation, microclimate, loss of fungal associates, erosion, and exotic species.	VEG07
18936	Deliberately and knowingly taking/destroying populations of state-listed ETSC plant species should not be an acceptable option.	VEG01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Voyageurs National Park Association (54910)		
18937	Having Poly Met purchase lands with [ETSC] populations to give to the State of Minnesota raises a question of conflict of interest since the State is the entity proposing this action.	NEPA15
18938	Many of the species listed for reclamation have proven to be problematic invasive species. This is not an acceptable practice. The emphasis on reclamation should be on ecological quality, not on speed of getting plants growing.	VEG05
18939	The cumulative impact area [for Vegetation] is unclear and seems to alternate between use of the Nashwauk Uplands/Laurentian Uplands and the Mesabi Iron Range.	VEG08
18940	The lead agencies should defer to the judgment of the Bands about potential impacts to traditional cultural properties even if the precise locations and significance are not shared with non-Natives.	CR05, CR06
18941	Trail systems such as the Beaver Bay-Lake Vermilion Trail historically connected communities, including connecting Native people who had off-reservation allotments in Voyageurs. Loss of parts of these trail systems may compromise the ability to understand historic Ojibwe land use in the entire region.	CR01, CR05
18942	we would suggest the lead agencies consider that the geographic feature known as the Misabe Widjiu (Laurentian Divide) could be significant not only to Native Americans but significant to the identity of the Region.	CR05
18943	The SDEIS does not include details outlining emergency procedures for the facilities. We request that the SDEIS be updated to specifically identify the key risks to the environment due to problems that could occur in the process (e.g. failed pumping stations) and containment systems due to extreme weather events and describe how the situation will be handled.	PD01, PD22
18944	the criteria used to evaluate failures should be reviewed and documented in the final EIS to ensure it reflects a general increase in heavy rainfall events due to climate change.	AIR01
18945	The SDEIS fails to include adequate discussion or analyses of alternatives including mining elements (pumping schemes, liners, covers, mechanical filtering and chemicals) capable of reducing the potential for surface and groundwater contamination and potentially, the need for centuries of water treatment.	ALT13
18946	documentation of "Best Practices" would provide stakeholders and the public with a higher level of confidence that all reasonable design and reclamation alternatives which could mitigate environmental impacts have been rigorously and objectively evaluated.	ALT06, ALT07, ALT13
<b>Sender Name (Submission ID)</b> Vu Thanh Phan (54200)		
17251	Having a mine up there can potentially damage the aquatic ecology and the natural habitat of many species.	AQ05
<b>Sender Name (Submission ID)</b> Vytautas Champ, Greenwood (58165)		
19943	Mining is detrimental to watersheds, the air, food, etc...mining is terrible for the ecosystem. Any study which states that there is no detrimental is conducted by a corporation. This is tampered data. And what about the fishes which are in danger? Mining and fracking can eliminate fish...	GEN03
<b>Sender Name (Submission ID)</b> W Clinton Jurgens (16935)		
1583	The SDEIS addresses water quality but completely fails to address the fact that water is a natural resource with inherent economic value.	FIN05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	W Clinton Jurgens (16935)	
1585	Water is desperately needed in many areas of the US and the world. Why would you not consider uses of all the resources? Why place water on a lower needs level and merely consider it as a resource for mining ore?	WR115
1588	The financial assurance required from PolyMet must include payment for the economic value of the water should it be damaged.	FIN05
1589	Less than 1% of bulk ore produces the copper, nickel, etc. generating over 99% waste in addition to the overburden. This equates to over 31,000 tons of waste every day, presenting a significant threat to the water.	WR025
1592	How can that be worth the small number of jobs that only last a single generation? If sulfide mining is permitted, it should at least be a critical part of a US strategic plan to maintain our leadership position in the world.	SO02
1601	The estimated value of the water in northeastern Minnesota [\$165,101,400,000] is significantly more than the estimated value of the Duluth Complex copper nickel mining operations [\$74,188,034,188].	SO01
1604	And, of course lake homes and resorts are significantly reduced in value. With a reduction in the value of lake property the tax receipts of these counties will also drop significantly.	SO03
1606	With polluted water the tourism industry will go away.	SO02
2072	Water is worth more than the ore and the SDEIS should address this simple fact first.	NEPA09
2073	If sulfide mining is permitted, it should at least be a critical part of a US strategic plan to maintain our leadership position in the world.	NEPA02
<b>Sender Name (Submission ID)</b>	W. Charles Huskins, M.D. (42980)	
8774	The SDEIS does not fully acknowledge vulnerable human populations affected by the environmental impacts of the project.	HU01
8776	The SDEIS does not adequately address the impact of the project on sulfate and mercury contamination of water resources and accumulation of methylmercury	MERC08
8777	The SDEIS does not adequately address the impact of methylmercury exposure on human health, particularly the health of vulnerable populations.	HU01
15164	...the SDEIS does not acknowledge pregnant women or their unborn infants are a vulnerable population with respect to methylmercury exposure...In addition, because mercury accumulates and persists in the human body, women with childbearing potential, not just pregnant women, should be considered a vulnerable population. This is a major omission because developing fetuses are highly susceptible to neurotoxicity caused by exposure to methylmercury.	HU01
15165	...the SDEIS does not acknowledge that elderly adults are another vulnerable population with respect to methylmercury exposure. The risk associated with this population may be due to reduced metabolism of toxic compounds, neurologic co-morbidities, a higher pre-existing load of mercury in their bodies, or increased consumption of contaminated fish...This is a major omission because of the large proportion of the population that already is classified as elderly and demographic trends that will increase the size of this proportion in the future.	HU01
15166	...because the existing [mercury] contamination [of water resources] is already above acceptable levels, any incremental increase in mercury contamination is important, particularly for vulnerable populations	MERC01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	W. Charles Huskins, M.D. (42980)	
15167	Recent measurements from the Partridge River indicate flow rates are 3-4 times higher than those used in the SDEIS models. In addition, the SDEIS does not account for changes in water flow that may occur as a result of climate change, catastrophic weather events, or other industrial activities that may occur during or after mine operations. For these reasons, the SDEIS estimates of sulfate and mercury contamination of water resources may be significant underestimates.	WR003, WR165, WR180
15168	The SDEIS assessment of the impact of the project on accumulation of methylmercury is based on the water quality model predictions for sulfate and mercury concentrations. This assessment is severely limited by numerous areas of uncertainty...Given the critical risk to human health posed by methylmercury exposure, particularly the risk to vulnerable populations..., the degree of uncertainty that surrounds the assessment of the impact of the project on methylmercury accumulation is unacceptable.	MERC11
15169	Given the duration of water treatment required (decades and perhaps centuries), the analysis of the effectiveness of wastewater and seepage treatment should account for variability, and incapacity, in the effectiveness of the water treatment system.	PD03
15170	The Adaptive Water Management Plan (AWMP) is proposed as a means to address the uncertainties identified above as well as unexpected future developments. However, the process by which the AWMP would be developed and reviewed, the opportunity for public comment, and the implementation, monitoring and revision of the AWMP are not described.	WR130
15171	the SDEIS does not address the impacts of methylmercury exposure on high-risk populations (e.g., children, pregnant women, the elderly), which are likely to differ from the impact on the population as a whole.	HU01
15172	The SDEIS uses the "Hazard Quotient"... to quantify the potential impact of the exposure to methylmercury on human health. The SDEIS states "a Hazard Quotient greater than 1 exceeds the health-based target" (Page 6-63). However, the SDEIS does not provide evidence that the Hazard Quotient is a precise and accurate measure of the effect of exposure to methylmercury on human health. Moreover, it does not state whether a Hazard Quotient threshold of 1 is applicable to all segments of the population, particularly vulnerable populations	HU01
15173	The SDEIS estimates the "maximum incremental cumulative Hazard Quotient from the two projects over existing fish mercury concentrations is 0.08 for recreational anglers, 0.61 for subsistence/tribal anglers, and 0.54 for subsistence fishers. The NorthMet Project Proposed Action contributes approximately 59 to 92 percent of the incremental cumulative Hazard Quotient." (Page 6-63)...a mere two-fold increase in this estimate would indicate that the project will have a substantial effect on the health of humans who are subsistence or tribal anglers.	HU03
15174	Perform and report additional studies of the effects of sulfate and mercury contamination of water resources on the accumulation of methylmercury, with adjustment for other variables (e.g., organic carbon, temperature, micronutrients required by sulfate-reducing bacteria, sulfate loadings, and hydrologic conditions).	MERC08
15175	Provide additional description of wastewater and seepage treatment with estimates of its effectiveness under varying conditions, including the need for mechanical interruptions at the Waste Water Treatment Plant, possible breaches in wastewater or seepage containment, and unusual climate conditions that would reduce capture of wastewater and seepage or markedly increase the demand on the system.	WR143, WR202
15176	Provide evidence that the Hazard Quotient is a precise and accurate assessment of the impact of methylmercury exposure on human health, including vulnerable populations ... If this cannot be done, use other methods for estimating the impact of methylmercury exposure on human health or acknowledge that the risk is unknown.	HU01
<b>Sender Name (Submission ID)</b>	Wade Johnson (42196)	

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Wade Johnson (42196)		
6378	There is enough destruction taking place on this planet already for the sake of easy money. When it gets to the point of sacrificing our environment as the Polymet proposal does, it must end.	SO02
<b>Sender Name (Submission ID)</b> Wallace Elton (12672)		
90	I believe the SDEIS is insufficient and should not be approved because it proposes no mitigation for indirect damage to wetlands	WET01
92	[The SDEIS] is lacking vital information about long-term water treatment needs and how they will be paid for.	WR035, WR128, WR143
94	sulfates and toxic metals such as mercury, copper, and nickel that are not captured for treatment will affect the aquatic organisms and habitats downstream and into Lake Superior	AQ05
95	the damage to wetlands and forest habitat will affect many kinds of wildlife directly, including four bird species identified as of greatest conservation need: spruce grouse, black-backed woodpecker, northern goshawk, and boreal owl. In addition, birds that depend on fish and other aquatic organisms for food, including belted kingfishers, hooded mergansers, common terns, and common loons, will be harmed by the decline in water quality both locally and downstream.	WI01, WI02
<b>Sender Name (Submission ID)</b> walmoe (20184)		
1777	We cannot survive without fresh water but we can survive without precious metals until they have proven technology available to insure non-pollution.	WR195
<b>Sender Name (Submission ID)</b> Walt Handschin (42782)		
6771	This type of mining has never been done properly and Polymet offers to take at least 500 years to provide wholly ineffectual remediation! Five hundred years is a long time. Minnesota – even if you include territorial days – has only been around for less than 166 years. Polymet has been around only for a matter of days and months and may have already – as we hold this hearing – secretly filed for bankruptcy.	FIN01
<b>Sender Name (Submission ID)</b> Walt Moe (18076)		
3189	But searching the SDEIS, I have found no concrete actions being proposed to be taken in case of things going wrong at the PolyMet mine causing irreparable harm to the waters of the Embarrass and Partridge Rivers, river watersheds and surrounding thousands of acres around these watersheds...to last at least 200 years, more likely 500 years, or even into perpetuity.	WR115, WR128
3190	Again, I think that the approximately 300 jobs for 20 years versus 200 to 500 or more years of remediation is an extremely poor choice unless other alternatives can be explored.	SO01
13285	My questions are how much monitoring is going to be required? For how long? How will it be handled? How quickly is a response going to occur? Who's going to make the decisions to curtail operations, and who's going to decide if it operations are allowed to presume -- or resume? As I understand the procedure, the above is to be spelled out in the actual permitting process, which I'm not sure will be subjected to the same scrutiny as the EIS.	PD24
<b>Sender Name (Submission ID)</b> Walt Niemiec (38933)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Walt Niemiec (38933)		
16866	I'm for economic development, people need jobs, but this cost is far too high. I believe it should wait unless and until a less obtrusive mining procedure can be developed.	SO01
<b>Sender Name (Submission ID)</b> Waltraud Usahanun (29311)		
13869	ENDLESS GREED FROM ECONOMY & HELPING AUTHORITHIES HAS TO STOP ALL KINDS OF DESTRUCTION TO THE ENVIRONMENT & LIVING CREATURES BY APPLY STRONGEST JUSTICE TO THE RESPONSIBLES.	SO01
13870	DEMAND ALL INITIATORS ACTING IRRESPONSIBLY TO PAY REDEMPTION TO FUTUREGENERATIONS!	FIN01
<b>Sender Name (Submission ID)</b> Wanda Ballentine (43995)		
14924	Minnesota has never permitted a project that would destroy this many acres of wetlands.	COE03
14925	the idea that following the close of the mine would require hundreds of years of treating polluted water!!	WR115, WR128, WR195
14926	Always there is the statement that jobs are the necessity for any proposed business. How long will the jobs last - a lot at first, but much fewer later - relative to the years of treating the polluted water?	SO01
14927	Will PolyMet PAY for [post-closure] treatment [of polluted water]? Or - as so often happens - will they go bankrupt and leave it up to the taxpayers????	FIN01, FIN10
14928	The decisions about PolyMet will have ramifications right up to the edge of the Boundary Waters Wilderness. ...If Minnesota allows this industry with an unbroken record of water pollution into this area, the pure water that is the lifeblood of the Boundary Waters would be severely threatened.	WILD02
14929	PolyMet's studies contain inaccurate water data that must be corrected - this lack is true of I don't know how many extraction proposals made in this country.	NEPA09
14930	the mine plan lacks analysis of human health impacts from mercury and asbestos-like fibers....	HU01
<b>Sender Name (Submission ID)</b> Warren Anderson (42873)		
8989	We are experiencing an economic downturn. We need to help working people get good jobs. Our economic system only works when people work, pay taxes and contribute to society. We need the jobs Polymet can provide for our cities and towns to live.	SO10
8989	We are experiencing an economic downturn. We need to help working people get good jobs. Our economic system only works when people work, pay taxes and contribute to society. We need the jobs Polymet can provide for our cities and towns to live. Our young people need to have a reason to stay and raise their families here.	SO10
8994	People say this has never been tried before...technology strides are going to make Polymet a state of the art production facility. Better, cleaner ways of manufacturing are being designed into the plant.	PD28
8994	People say this has never been tried before...technology strides are going to make Polymet a state of the art production facility. Better, cleaner ways of manufacturing are being designed into the plant.	PD28

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Warren Anderson (42873)		
18069	People say mining is a short-term project. This site has created jobs for many years. My first trip to Erie Mining was as a high school freshman, in 1975. I am now 55 years old and hope to be working with the people at Polymet for many years to come. There has been mining in this area since 1905. How many other industries have lasted that long?	SO10
18069	People say mining is a short-term project. This site has created jobs formany years. My first trip to Erie Mining was as a high school freshman, in1975. I am now 55 years old and hope to be working with the people atPolymet for many years to come. There has been mining in this area since1905. How many other industries have lasted that long?	SO10
18071	technology strides are going to make Polymet a state of the artproduction facility. Better, cleaner ways of manufacturing are beingdesigned into the plant. We can make it safe and clean.	PD32
18071	technology strides are going to make Polymet a state of the art production facility. Better, cleaner ways of manufacturing are being designed into the plant. We can make it safe and clean.	PD32
<b>Sender Name (Submission ID)</b> Warren Banks (42238)		
6718	Is there a verified history of the effects of copper-nickel mining on the adjacent environment?	PD26
<b>Sender Name (Submission ID)</b> Warren Howe (11564)		
2208	The SDEIS proposes a permanent 526-acre, 25-story, unlined Category 1 waste rock pile, although PolyMet’s earlier 2010 proposal (DEIS) would have provided lined stockpiles for long-term waste storage. Clearly, unlined waste rock piles would release far more toxic waste than lined piles.	PD16
2208	The SDEIS proposes a permanent 526-acre, 25-story, unlined Category 1 waste rock pile, although PolyMet’s earlier 2010 proposal (DEIS) would have provided lined stockpiles for long-term waste storage. Clearly, unlined waste rock piles would release far more toxic waste than lined piles.	PD16
2209	PolyMet’s two-mile-wide tailings piles would also be unlined. Its claims that more than 99% of seepage will be captured are unsubstantiated and not supported by field experience. And PolyMet would pile its tailings on top of the old LTV tailings site, where surface and groundwater seepage already violates water quality standards.	WR018, WR020, WR117
2209	PolyMet’s two-mile-wide tailings piles would also be unlined. Its claims that more than 99% of seepage will be captured are unsubstantiated and not supported by field experience. And PolyMet would pile its tailings on top of the old LTV tailings site, where surface and groundwater seepage already violates water quality standards.	FIN05, FIN10
14343	Every time sulfide mining has been tried in a water-rich environment, such as the proposed site, it has resulted in contamination of surface and/or ground water with sulfates and toxic metals. PolyMet’s SDEIS does not demonstrate why its proposal would have better results.	WR023
14343	Every time sulfide mining has been tried in a water-rich environment, such as the proposed site, it has resulted in contamination of surface and/or ground water with sulfates and toxic metals. PolyMet’s SDEIS does not demonstrate why its proposal would have better results.	WR023
14344	I also request that the United States Forest Service reject the proposed transfers of land for the mining project. The USFS will not obtain more valuable land than it would surrender, so why does it even entertain such a land exchange? The USFS is not in the business of mine development.	LAN03
14344	I also request that the United States Forest Service reject the proposed transfers of land for the mining project. The USFS will not obtain more valuable land than it would surrender, so why does it even entertain such a land exchange? The USFS is not in the business of mine development.	LAN03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Warren L High (57261)		
17398	No mining should be allowed in this area because of the destruction of the fresh water applied to Lake Superior and our extreme world problem for potable water	WR111
<b>Sender Name (Submission ID)</b> Water Legacy (52178)		
4037	The 90-day comment period was insufficient, not only because the SDEIS is long, but because important information was omitted from the SDEIS and even from the reference documents provided on CDs.	NEPA07
4038	WaterLegacy’s submissions reach the conclusion that the SDEIS is inadequate and the project is likely to pose significant adverse impacts to the environment, to human health, to environmental justice and to tribal rights and resources.	CR01
4039	The SDEIS is data poor, and its modeled outcomes are determined by unsubstantiated and unreasonable assumptions, rather than by empirical information and field experience. Basic information required to evaluate PolyMet’s proposed action, such as a water balance and loading of solutes in process water flows, is not presented.	WR059, WR060, WR071, WR072, WR172, WR173, WR177
4040	Closer review reveals that fundamental modeling assumptions, like Partridge River baseflow, are erroneous.	WR003
4041	Cited literature is misrepresented and information selectively presented, suggesting advocacy for the project, rather than an independent assessment of its probable outcomes.	NEPA08
4071	Federal regulations promulgated under the National Environmental Policy Act (NEPA) are not followed in the SDEIS. Information is not the high quality required under NEPA, foreseeable failures are not analyzed, cumulative impacts are arbitrarily limited, and no alternatives are evaluated, although alternatives analysis is the heart of the EIS under applicable law.	NEPA14
4072	The SDEIS is not compliant with the regulations in 40 CFR 1500 – 1508, and is technically inadequate. The proposed action is conceptual and not specific, and is not compared to reasonable alternatives. The descriptions of the affected environment are not representative of the site specific conditions at the mine site or the plant site. The environmental consequences presented in the SDEIS are based on assumptions that are not substantiated or are unjustified. Consequently, the conclusions presented in the SDEIS are not defensible and should not be used as a basis for making decisions affecting the environment.	NEPA09
4295	The analyses presented in the SDEIS are not based on an analytical or scientific review of the proposed action and the reasonable alternatives to the proposed action. Instead, the analyses are based on a conceptual description of the proposed action and an extensive set of assumptions of the environment and the performance of the conceptual design. The SDEIS is technically inadequate as a result of the numerous omissions and flaws in the analyses presented in the SDEIS.	NEPA09
4296	The PolyMet proposed action described in the SDEIS also fails to satisfy Clean Water Act Section 404 requirements. The SDEIS does not demonstrate that the project is the least environmentally damaging practicable alternative or that its impacts on aquatic resources of national importance will be mitigated.	COE04
4297	The proposed land exchange serves a narrow private interest and contradicts both federal policy and federal fiduciary responsibilities to protect tribal resources.	CR01
4298	the PolyMet SDEIS declines to model what are likely to be the most significant adverse impacts of its proposal – indirect destruction of high value wetlands in the Partridge River watershed near the mine site and increases in methylmercury contamination of fish as a result of emissions, discharges and hydrologic changes resulting from the proposed action.	AQ25, WET08

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4299	Even with all of the limiting assumptions and lack of clarity in the SDEIS disclosures, scrutiny reveals that the PolyMet project would result in wetlands destruction dwarfing cumulative past and foreseeable watershed impacts from all other sources.	WET24
4300	The PolyMet project would have the potential for significant adverse impacts to aquatic life, a federally-listed species, and to persons who consume fish and wild rice for subsistence.	HU03
4301	The project is modeled to increase cancer risks above Minnesota's health risk threshold and to exceed Minnesota's health risk limits for pollution in groundwater.	HU05
4302	The SDEIS must be revised to provide a clear water balance showing inputs and outputs from the mine, plant, tailings basin, treatment facility and hydrometallurgical residue facility during operations, closure and long-term treatment and maintenance.	WR181, WR182
4303	The SDEIS must be revised to provide a clear statement of the concentration predicted of solutes for representative years in all mine site and plant site potential sources of contamination in units of measurement comparable to water quality standards.	WR060, WR173
4304	The SDEIS must be revised to provide a clear explanation of the modeled sources of solutes in waste rock piles, tailings, mine pits, equalization basins and the HRF, specifying for each the source and concentration of inputs and the degree to which the modeling has assumed a concentration cap, adsorption of solutes or burial of solutes.	WR060, WR173
4305	The SDEIS must be revised to describe the basis for any such critical assumptions pertaining to the level of solute concentrations, including concentration caps, burial or adsorption assumptions.	WR033, WR058, WR060, WR167, WR173
4306	The SDEIS must be revised to provide a clear statement of the volume and concentration of seepage, leakage, spillage and runoff from any potential source of contamination at the mine site and plant site.	PD04, PD08, WR060, WR173, WR189
4307	The SDEIS must be revised to make explicit any assumptions about the efficacy of liners or caps in containing seepage or process water or limiting percolation of precipitation, including all field experience that supports these assumptions and a comparison between the climate conditions and duration under which these were tested as compared to the proposed action.	WR126
4308	The SDEIS must be revised to substantiate any assumptions about the efficacy of collection systems in containing seepage, specifying the particular field experiences, climates, geological conditions and designs where the efficacy has been demonstrated.	PD04, PD08
4309	The SDEIS must be revised to substantiate any assumptions regarding hydraulic conductivities in surficial and bedrock materials.	WR086, WR087, WR096, WR099
4310	The SDEIS must be revised to identify the capital, replacement cycle, operations, and maintenance costs for all treatment and mitigation measures during operations, reclamation and long-term closure, specifying which measures are definite and which are contingent as part of adaptive management.	FIN05, FIN06
4311	The SDEIS must be revised to provide accurate baseflow modeling for the Partridge River.	WR003
4312	The SDEIS must be revised to model propagation of contaminants through high conductivity surficial materials and secondary porosity features in bedrock.	WR010, WR011, WR012, WR058, WR061, WR071, WR090, WR168

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4313	The SDEIS must be revised to model propagation of uncaptured seepage in all directions indicated by reasonable geology, hydrology, history and data.	WR103, WR189
4314	The SDEIS must be revised to use current and substantiated sorption coefficients.	WR058, WR167, WR168
4315	The SDEIS must be revised to model site-specific impacts on wetlands that would result from mine drawdown, calibrating such model using accurate hydrologic data and field experience.	WET08
4316	The SDEIS must be revised to model increased mercury methylation in the project area and downstream in the St. Louis River as a result of hydrologic changes, mercury air emissions, dust deposition, and discharge of mercury and sulfates.	AIR05
4317	The Proposed Action must be substantially changed to preclude use of untreated Colby Lake water for stream augmentation to Unnamed Creek, Mud Lake Creek, Trimble Creek or Second Creek.	WR124
4318	The SDEIS must be revised to explain how stream augmentation will be ensured without relying on untreated Colby Lake water to serve this purpose and must demonstrate that the proposed solution will comply with applicable water quality standards.	WR123, WR124, WR125
4319	The SDEIS must be revised to analyze impacts of mercury air deposition from the PolyMet mine site, including magnitude and speciation. This analysis must consider impacts on all waters, including the Second Creek watershed and waters upstream of identified Embarrass River lakes.	AIR05
4320	The SDEIS must be revised to analyze impacts of mercury air deposition considering species other than fish and potential bioaccumulation in downstream waters.	AIR05
4321	The SDEIS must be revised to provide explicit information as to the mass of mercury in peat, overburden, ore, waste rock, process water, tailings, reject concentrate, filtered sludge, HRF waste and any other potential sources of mercury release from the project.	MERC14, MERC20
4322	The SDEIS must be revised to disclose mercury concentrations in seepage from all potential project sources, including the OSLA, Category 1 waste rock pile, liner leaks, mine pits, tailings piles and the HRF, making explicit any assumptions regarding leaks, infiltration and adsorption.	MERC20
4323	The SDEIS must be revised to provide a scientific basis for its assumptions regarding mercury burial, sequestration or adsorption in the East Pit, West Pit lake, tailings or hydrometallurgical residues.	MERC04, MERC20
4324	The SDEIS must be revised to use a reasonable range of probabilities for mercury burial, sequestration or adsorption in lake sediments, tailings, residues and surficial materials based on uncertainty as to the mechanisms of adsorption and desorption and the range of values observed in tests and field experience.	MERC04, MERC20
4325	The SDEIS must be revised to disclose the influent and effluent assumptions and targets for the WWTF, both prior to and after conversion to reverse osmosis, and for the WWTP, explaining for both facilities the treatment methods proposed to achieve compliance with the Great Lakes mercury standard.	WR147
4326	The SDEIS must be revised to assess the sulfur content of mine site and plant site particulate emissions and the impacts of particulate emissions and ore spillage on mercury methylation in the project area and on sulfate loading to the Partridge River and Embarrass River watersheds.	MERC08, WR151
4327	The SDEIS must be revised to assess the impacts of all mine site sulfate seeps and liner leaks to shallow groundwater on mercury methylation.	MERC20
4328	The SDEIS must be revised to disclose the concentration of sulfates in tailings basin pore water and seepage release beneath the tailings basin.	MERC06, WR060

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4329	The SDEIS must be revised to model reasonably foreseeable improvements of water quality at, near and downstream of the tailings basin for a “no action” baseline considering natural attenuation through precipitation and mitigation likely to be required in compliance with the Cliffs Erie Consent Decree.	MERC04, WR108
4330	The SDEIS must be revised to assess the impacts of tailings basin sulfate releases on mercury methylation as compared to a “no action” baseline.	MERC08
4331	The SDEIS must be revised to model the impacts of sulfate and mercury emissions and release and hydrologic changes at both the mine site and the tailings basin site on mercury methylation.	AIR05
4332	The SDEIS must be revised to evaluate effects on water quality, wildlife, human health, tribal rights and resources and environmental justice resulting from cumulative impacts of the PolyMet proposed action on the St. Louis River and estuary.	HU01
4333	The SDEIS must be revised to determine effects of the PolyMet project on compliance with the downstream Fond du Lac water quality standard for mercury.	PER11
4334	The SDEIS must be revised to provide a health impacts assessment for methylmercury, describing salient health impacts and assessing cumulative health risks of increased mercury on fetuses, infants, children and adults.	HU01
4335	The SDEIS must be revised to assess disparate impacts of methylmercury bioaccumulation on low-income families and tribal members who rely on fish for subsistence.	HU01
4336	The SDEIS must be revised to analyze cumulative impacts of mercury and sulfate releases and methylmercury bioaccumulation on tribal rights and resources and environmental justice.	SO04
4337	The SDEIS must be revised to conclude that the PolyMet proposed action would pose an unacceptable cumulative risk to human health and to environmental justice.	HU01
4338	The SDEIS must be redone to accurately model Partridge River baseflow, using all reasonably available data and the range of minimum flows calculated by tribal and MDNR scientists.	WR003
4339	The SDEIS must be redone to revise modeled predictions of inflows and outflows, water quality and wetlands impacts at the mine site, showing the effects that a change in Partridge River baseflow has had on these modeled outcomes.	WR003, WR052, WR071, WR086, WR091, WR115
4340	The SDEIS must be revised to disclose changes in the volume and chemistry of water inputs to the mine site WWTF, tailings piles and plant site WWTP based on revised predictions of baseflow, identifying any planned changes in treatment facilities.	PD03, WR003, WR147
4341	The SDEIS must be revise[d] to consider the presence of known bedrock fractures transecting mine pits and beneath mine site contamination sources in calculating potential water quality impacts.	WR010, WR012
4342	The SDEIS must be revised to assess the hydrologic significance of bedrock fractures, faults and secondary porosity features at the mine site.	WR007, WR008, WR011, WR012, WR061, WR086, WR087, WR099, WR168, WR169
4343	The SDEIS must be revised to consider blasting and weathering impacts on propagation and access of contaminated groundwater to bedrock fractures.	WR010, WR016

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4344	The SDEIS must be revised to provide more robust assessment of the connection between deep groundwater and surficial waters, including additional deep borehole sampling as well as pump testing.	WR007, WR008, WR010
4345	The SDEIS must be revised to assess surficial materials, such as zones of outwash sand and gravel that may provide high conductivity pathways for contaminants.	WR058, WR092, WR096
4346	The SDEIS must be revised to consider the full range of hydraulic conductivities of surficial materials, not just an average based on excluding the most conductive samples.	WR058, WR092, WR096, WR167
4347	The SDEIS must be revised to analyze propagation of seepage from all mine site contaminant sources through shallow groundwater and bedrock secondary porosity features in multiple directions, including flow north and northeast to Yelp Creek, the Hundred Mile Swamp and the Partridge River.	WR011, WR012, WR061, WR080, WR081, WR086, WR087, WR089, WR099, WR167, WR168, WR169, WR175, WR186
4348	The SDEIS must be redone to analyze the Category 1 waste rock pile as an independent contaminant source, propagating pollutants in various directions through shallow groundwater and bedrock secondary porosity features.	WR010, WR071, WR086, WR088, WR167
4349	The SDEIS must be revised to analyze alternatives to minimize seepage from the Category 1 waste rock pile, including liners and a seepage collection system.	ALT07
4350	The SDEIS must be revised to disclose the volume and concentration of Category 1 waste rock pile seepage at various mine years and stages, stating clearly what volume of seepage reduction and collection has been modeled to make water quality predictions.	PD04, WR189
4351	The SDEIS must be revised to use a reasonable range of input assumptions to model uncaptured seepage from the Category 1 waste rock stockpile. This reasonable range of input values must be based on site-specific hydrogeology, climate, change over time, and field experience.	WR017
4352	The SDEIS must consider a broader range of input assumptions for the efficacy of the geomembrane system over time in preventing introduction of precipitation to the Category 1 waste rock pile.	WR127
4353	The SDEIS must be revised to modify the concentration cap assumption for the Category 1 waste rock pile considering the variability of sulfur concentrations and the potential for pockets of acidity and high metals leachate in this waste rock.	WR127
4354	The SDEIS must be revised to remove the potential use of Category 1 waste rock for construction materials given its potential to generate acids and leach metals.	PD15
4355	The SDEIS must disclose solute concentrations within the mine pits at representative years and identify the nature and extent of reduction in solute concentrations predicted to result from subaqueous disposal, any proposed treatment method and from attenuation.	WR088
4356	The SDEIS must be revised to substantiate claims for the efficacy of subaqueous disposal in preventing acid mine drainage and reducing solute concentrations and to discuss the relationship between cycling of pit water for treatment and maintaining anoxic conditions.	PD03, WR173
4357	The SDEIS must reconcile the apparent contradiction between statements that in-pit disposal in the West Pit Backfill alternative provides no environmental advantage and assertions for the proposed action that subaqueous disposal is highly beneficial.	ALT03, PD29

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4358	The SDEIS must be revised to analyze the nearest point of connection to surface water for all discharges to groundwater from any mine site contamination source.	WR120, WR177
4359	The SDEIS must be revised to disclose at P90 probabilities the levels of all regulated parameters at the closest location where they would be discharged to surface water from any mine site contamination source.	WR120, WR177
4360	The SDEIS must be revised to clearly state that the proposed action would have significant adverse effects on the environment, including violation of numeric surface water quality standards as a result of mine site discharge.	WR107
4361	The SDEIS must be revised to include a clear and intelligible water balance for the tailings basin and WWTP.	WR056, WR063, WR182
4362	The SDEIS must be revised to consider the presence of known bedrock fractures beneath the tailings basin.	WR011, WR012, WR061, WR099
4363	The SDEIS must be revised provide a reasonable assessment of tailings seepage through faults, fractures and other secondary porosity features beneath the tailings basin.	WR011, WR012, WR061, WR099
4364	The SDEIS must be revised to use a reasonable range of assumptions based on site-specific conditions and field experience to model containment and release of untreated seepage to surface water and groundwater.	WR067, WR189
4365	The SDEIS must be revised to assess potential seepage toward the east based on changes in the topography and water table height in tailings Cell 1E and Cell 2E.	WR054, WR102
4366	The SDEIS must be revised to provide a reasonable assessment of seepage toward the south and Second Creek based on hydrological testing, LTVSMC experience and increased storage of tailings and process water.	WR056, WR117
4367	The SDEIS must be revised to specify concentrations of constituents in plant process water, tailings basin pore water, untreated seepage and WWTP influent, using numbers that allow easy comparison with applicable surface and groundwater quality standards.	WR060
4368	The SDEIS must be revised to specify concentrations of constituents in mine site process water and to verify the capacity of the WWTF to reduce contaminants to meet “targets.”	WR147
4369	The SDEIS must be revised to disclose its assumptions regarding the capacity of the tailings site to contain water, the water pressure exerted, and what increase in the volume of groundwater is predicted during operations and closure.	PD07, WR056, WR090, WR105
4370	Where field experience has demonstrated the insufficiency of water quality models, the SDEIS must demonstrate that models have been revised to verify their accuracy.	WR003, WR049
4371	The SDEIS must be revised to disclose its assumptions regarding concentration caps, explaining what concentrations of solutes would be predicted absent a cap, and how uniform pH and sulfate would be maintained with varying inputs over thousands of acres.	WR033
4372	The SDEIS must be revised to disclose and substantiate its assumptions regarding burial, sorption or retention in tailings and reduction in chemical reactivity resulting from bentonite placement, including field experience that supports those assumptions.	WR060
4373	The PolyMet revised SDEIS must consider alternative methods of avoiding or mitigating impacts of tailings seepage on water quality, including but not limited to constructing a new and completely lined tailings facility on a properly prepared bedrock surface.	ALT07, ALT10, WR133

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4374	The SDEIS must be revised to provide detailed disclosure of the chemical composition and pH of all individual wastes proposed for disposal in the HRF, including but not limited to hydrometallurgical process wastes and WWTF sludge.	PD18
4375	SDEIS must be revised to analyze the chemical composition of all HRF wastes based on additional leachate testing that reflects the current hydrometallurgical and WWTF sludge formation processes, and must evaluate chemical changes over time.	PD18, WR068
4376	The SDEIS must be revised to provide a current mass balance for mercury, including a current analysis of the mass of mercury that would be deposited in the HRF from all wastes, including but not limited to hydrometallurgical process wastes and WWTF sludge.	MERC17
4377	The SDEIS must be revised to provide a rigorous analysis of whether the HRF wastes or any part of them are hazardous wastes under Minnesota law, requiring issuance of a hazardous waste disposal permit.	HAZ02
4378	The SDEIS must be revised to reject any location for the HRF on top of wetlands, compressed peat, slimes or unconsolidated materials, and to reject any location on top of faults or fractures, unless detailed hydrologic analysis has demonstrated lack of hydraulic conductivity to shallow groundwater.	PD19, WR069
4379	The SDEIS must be revised to conclude that the location for the HRF in the PolyMet proposed action is unacceptable.	PD19
4380	The SDEIS must be revised to model water quality impacts from the HRF based on a reasonable and conservative range of liner leakages under normal conditions.	WR067
4381	The SDEIS must be revised to model water quality impacts from HRF discharge in the reasonably foreseeable event of liner failure or stability failure.	WR067
4382	The SDEIS must be revised to evaluate alternatives to mitigate leakage from the HRF including completely dewatering and solidifying HRF materials.	PD17
4383	The SDEIS must be revised to evaluate the potential that materials deterioration and maintenance lapses over time would increase liner leakage and water quality impacts.	PD03, WR127, WR129
4384	The Section 404 permit for the PolyMet project must be denied because the proposed action has substantial and unacceptable impacts on aquatic resources of national importance (ARNI).	COE09
4385	The Section 404 permit for the PolyMet project must be denied because the proposed action has substantial and unacceptable impacts on wetlands in the Partridge and Embarrass River watersheds, impacting drinking water quality, fisheries and wildlife in the Lake Superior Basin.	COE03
4386	The Section 404 permit for the PolyMet project must be denied because the applicant's mitigation plan fails to compensate for reasonably foreseeable indirect adverse impacts on wetlands.	COE02
4387	The Section 404 permit for the PolyMet project must be denied because the applicant's mitigation plan proposes compensation for direct destruction of wetlands outside the Lake Superior Basin.	COE01
4388	The Section 404 permit for the PolyMet project must be denied because the applicant's mitigation plan fails to minimize and avoid impacts on irreplaceable wetlands in the Lake Superior Basin.	COE01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4389	The Section 404 permit for the PolyMet project must be denied because the SDEIS fails to consider project and mitigation alternatives that would reduce impacts on wetlands and ARNI.	COE04, COE09
4390	The Section 404 permit for the PolyMet project must be denied because it has not been demonstrated that the proposed action is the least environmentally damaging practicable alternative.	COE04
4391	The SDEIS must be revised to employ a valid site-specific model and provide high quality information on the indirect adverse impacts on wetlands from all of the following: a) mine drawdown; b) tailings area hydrological change; c) water quality impacts; d) air deposition of pollutants.	WET10, WR112
4392	The SDEIS must be revised to specifically state the number of wetland acres where indirect wetlands impacts are reasonably foreseeable, providing a scientific basis for its conclusions.	WET07
4393	The United States Forest Service (USFS) should reject the proposed land exchange as inconsistent with federal laws requiring that exchange of public lands be in the public interest and for fair value.	LAN01, LAN03
4394	The USFS should reject the proposed land exchange since it conflicts with federal regulations disapproving exchanges of land with split estates and reserved mineral rights.	LAN04
4395	The USFS should reject the proposed land exchange as inconsistent with the Forest Plan, due to water quality and wetlands impacts, and losses of mature forests and high diversity habitats for rare and endangered species and species of special concern.	LAN04
4396	The USFS should reject the proposed land exchange due to losses of wetlands, headwaters and higher order streams in the Lake Superior Basin and adverse impacts on high priority national and international waters.	WR107, WR108, WR114
4397	The USFS should reject the PolyMet project and proposed land exchange as inconsistent with provisions of the Forest Plan and obligations of the federal government to protect tribal rights to fish, hunt and gather plants.	CR01
4398	The USFS should immediately disclose all appraisal information for the land exchange and allow public review and comment.	LAN03
4399	The SDEIS should be revised to analyze the impacts of loss of wetlands, headwaters and higher order streams in the Lake Superior Basin.	WR071, WR112, WR114
4400	The SDEIS should be revised to analyze cumulative impacts of the land exchange and the PolyMet project on tribal rights to hunt, fish and gather wild rice and other plants in the Ceded Territories, Reservation waters, the St. Louis River, and the Lake Superior Basin.	CR01, CR03
4401	The SDEIS must be revised to assess specific conductivity, including background levels from reference streams, elevations in project waters resulting from existing mining impacts, improvements in water quality predicted from attenuation and enforcement, and impacts from the PolyMet proposed action.	WR064, WR071, WR108
4402	The SDEIS must be revised to assess cumulative impacts of the specific conductivity from the PolyMet project on aquatic life in downstream waters, including the St. Louis River.	AQ14, AQ26
4403	The SDEIS must be revised to evaluate the significance of the potential impacts on aquatic life from increased metal solutes under the proposed action, including solutes not predicted to exceed numeric water quality standards.	AQ06

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4404	The SDEIS must be revised to include results from toxicity testing of leachates from PolyMet project wastes and tailings to evaluate risks to aquatic life from uncaptured seepage.	AQ05, AQ06
4405	The SDEIS must be revised to evaluate impacts on aquatic ecosystems from hydrologic changes resulting from the PolyMet project in the Partridge River watershed, including Yelp, Wetlegs, Wyman, Longnose and Unnamed Creek as well as the Partridge River. This consideration must include revised and accurate baseflow inputs.	AQ24, WR003, WR081
4406	The SDEIS must be revised to evaluate impacts on aquatic ecosystems from the volume as well as chemical composition of WWTF effluent that would be discharged to the Partridge River during closure.	AQ23, WR147
4407	The SDEIS must evaluate the impacts of hydrologic changes to the Partridge River watershed resulting from the PolyMet proposed action [on aquatic life], considering seasonal and climatic variations, not just averages.	AQ24, WR003, WR180
4408	The SDEIS must evaluate an alternative where reverse osmosis is constructed on the PolyMet mine site in year one and augmentation provided to Partridge River watershed streams to mitigate impacts on aquatic ecosystems.	ALT13
4409	As detailed in Section I, the SDEIS must be revised to provide a comprehensive assessment of the risks of methylmercury resulting from the PolyMet project to fetuses, infants, children and adults, including people who rely on fish for subsistence as a result of fish consumption in the Embarrass River and Partridge River watersheds and in the St. Louis River.	HU01
4410	The SDEIS must be revised to assess impacts of air emissions at the PolyMet mine site and plant site for on-site workers both for cancer and non-cancer health risks.	HU04
4411	The SDEIS must be revised to model exposure of PolyMet on-site workers to mineral fibers and estimate the health risk to workers from mineral fibers based on the best protocols and research available, including the U of M 2013 data.	HU04
4412	The SDEIS must be revised to model the volume and concentrations of mineral fibers in air emissions from the PolyMet mine site and plant site and in water discharge to groundwater and surface water to assess health risks to the public.	AIR03, WR025, WR107
4413	The SDEIS must be revised to disclose all parameters of concern, including lead, mercury and methylmercury in all residential wells between the tailings basin and the Embarrass River, sampling multiple times and correlating results with location and depth of wells.	WR041
4414	The SDEIS must be revised to analyze potential impacts [(including health risks)] of tailings basin seepage on residential wells, using reasonable assumptions regarding the volume and concentrations of seepage that would be released untreated from the PolyMet tailings piles.	HU01, WR041
4415	The SDEIS must be revised to evaluate health risks from coal combustion emissions resulting from the PolyMet proposed action.	HU01
4416	The SDEIS must be revised to state that increased discharge of arsenic from the PolyMet project would increase cancer risks beyond Minnesota's cancer risk threshold of 1 in 100,000.	HU05
4417	The SDEIS must be revised to state that increased manganese discharge at the tailings basin would exceed Minnesota's health risk limit of 100 µg/L.	HU01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4418	The SDEIS must be revised to provide a Health Risk Assessment for air emissions, discharge to surface water and groundwater and, where applicable, bioaccumulation of pollutants that may pose a risk to human health from the PolyMet proposed action. This Health Risk Assessment, prepared in conjunction with the Minnesota Department of Health, must:1. Explain health risks of pollutants in terms intelligible to decision-makers and the public;2. Use reasonable assumptions about emissions, seepage and transport of pollutants;3. Evaluate cancer and non-cancer risks for vulnerable populations, including fetuses, infants, children and the elderly;4. Evaluate cancer and non-cancer risks to populations with highest levels of exposure, including on-site workers, persons with residential drinking wells downstream of the site, and persons who rely on fishing, hunting and gathering for subsistence.5. Evaluate cumulative risks of multiple chemicals and exposure routes.6. Evaluate past, existing and reasonably foreseeable impacts of pollutants in assessing health risks.	HU01
4419	Upon completion of a Health Risk Assessment, the SDEIS must quantify as socioeconomic costs all costs related to health impacts, including medical treatment costs, lost productivity and costs from reduction of neurological and other functions in infants, children and adults.	SO04
4420	The SDEIS must be revised to assess the probabilities and environmental consequences of partial or complete slope failure of waste rock stockpiles.	GT15
4421	The SDEIS must be revised to assess the probabilities and environmental consequences of partial or complete dam or slope failure at the tailings and hydrometallurgical residue storage facilities.	GT15
4422	The SDEIS must be revised to assess the probabilities and environmental consequences of extreme weather and flooding at the mine site and plant site.	PD22
4423	The SDEIS must be revised to assess the probabilities and environmental consequences of pipeline spills and rail accidents along the transportation corridor.	PD36
4424	The SDEIS must be revised to assess the probabilities and environmental consequences of failure of the integrity of liners beneath sumps, basins, ore surge and waste rock piles and the hydrometallurgical residue facility.	PD11, PD17, PD22
4425	The SDEIS must be revised to assess the probabilities and environmental consequences of failure of leachate collection and wastewater treatment systems to perform as planned.	PD11, PD22
4426	The SDEIS must be revised to provide sufficient detail as to the nature and duration of wastewater treatment, leachate containment, liners, caps, maintenance, monitoring, and wetlands compensation to support mitigation and financial assurance requirements.	FIN05, FIN06, FIN11
4427	The SDEIS must be revised to provide a detailed projection of capital costs, operating costs, life cycle replacement, adaptive management and contingency costs for unanticipated events to allow determination of financial assurance requirements.	FIN05
4428	The SDEIS must be revised to evaluate the Underground Mining project alternative based on the full scope of mineral resources at the site and the reasonable costs of both Underground Mining and the proposed action, including long-term mitigation costs.	ALT01
4429	The SDEIS must be revised to evaluate the West Pit Backfill mitigation alternative, explaining any environmental concerns posed by in-pit disposal of waste rock.	ALT03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4430	The SDEIS must be revised to evaluate the Mine Site Reverse Osmosis in Year One alternative, including the following components:1. Require on-site treatment of mine site stormwater and process water with reverse osmosis to meet surface water quality standards and prevent degradation of water quality starting in year one.2. Employ hydrological testing to assess appropriate quantities and locations for water release to support wetlands and headwaters streams in the Partridge River watershed.3. Release water treated by mine site reverse osmosis through pipe and/or spigot systems to mitigate the impacts of hydrological changes and mine dewatering on high value aquaticresources in the Hundred Mile Swamp and Partridge River Headwaters.4. Treat East Pit water with mine site reverse osmosis starting when reclamation begins, to limit acidity and metals seepage from the East Pit to aquatic ecosystems.	ALT13
4431	The SDEIS must be revised to evaluate alternatives for the management of reject concentrate, including but not limited to evaporation or disposing of reject concentrate off site.	ALT09
4432	The SDEIS must be revised to evaluate alternatives for the Category 1 waste rock pile that seal faults and fractures, construct the pile over a compacted subgrade, and place liner and leak detection systems under the waste rock pile.	ALT07
4433	The SDEIS must be revised to evaluate an alternative for the Overburden Storage Laydown Area that seals any faults and fractures, constructs the pile over a compacted subgrade, and places liner and leak detection systems under the OSLA	ALT07
4434	The SDEIS must be revised to evaluate alternatives that place PolyMet tailings in a new tailings facility excavated to bedrock and constructed on a compacted subgrade above liners and a leak detection system.	ALT10
4435	The SDEIS must be revised to evaluate additional alternatives that reduce seepage from tailings, including post-closure dewatering and dry tailings disposal.	ALT10
4436	The SDEIS must be revised to evaluate alternative locations for HRF, excluding sites located above an existing landfill, compressed peat, wetlands, or bedrock faults and fractures.	ALT09
4437	The SDEIS must be revised to evaluate an alternative where HRF wastes are managed and monitored as hazardous wastes, including active dewatering and stabilization at closure.	ALT09
4438	The SDEIS must be revised to evaluate the alternative of disposing of hydrometallurgical wastes and sludge off-site in a facility designed and maintained to manage this material.	ALT09
4439	The SDEIS must be revised to evaluate an alternative using new rail cars with sealed compartments to transport ore and fines.	ALT06
4440	The SDEIS must be revised to state clearly that the cumulative impacts of the PolyMet project and other past, present and future mining projects would have a significant adverse impact on aquatic life.	AQ27
4441	The SDEIS must be revised to state that the cumulative impacts of the PolyMet project and other past, present and future mining projects on wildlife corridors would have a significant adverse impact on the Canada lynx, a federally-listed species.	WI01, WI03
4442	The SDEIS must be revised to include a cumulative analysis of the effects of PolyMet proposed action on wetlands values.	WET18
4443	The SDEIS must be revised to analyze the cumulative effects of the PolyMet proposed action on groundwater in the project area, including impacts of Northshore and Cliffs Erie facilities.	WR024

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4444	The SDEIS should not be finalized until the mercury TMDL study for the St. Louis River is completed.	MERC22
4445	The SDEIS must be revised to analyze cumulative effects of the PolyMet proposed action on mercury and methylmercury in the project area and the St. Louis River.	MERC10
4446	The SDEIS must be revised to analyze cumulative effects of the PolyMet proposed action on sulfates and wild rice in the project area and the St. Louis River.	WR159
4447	The SDEIS must be revised to analyze cumulative effects of PolyMet discharge of salts, ions and metals on St. Louis River aquatic life and water quality in the project area and the St. Louis River.	AQ06, AQ26
4448	The SDEIS must be revised to analyze cumulative effects of the PolyMet project on environmental justice, as a result of impacts to natural wild rice, fish abundance and mercury contamination of fish.	SO04
4449	The SDEIS must be revised to analyze cumulative effects of the PolyMet project on tribal trust resources, including fish, wild rice and moose in the project area and the 1854 Ceded Territories.	CR01, CR03
4450	The Section 404 permit must be denied due to federal obligations to protect trust resources from wetlands and habitat destruction and increased mercury bioaccumulation in fish.	CR01
4451	The land exchange must be denied due to federal obligations to protect trust resources of high biological diversity that serve as habitat for moose.	WI02
4452	The SDEIS must be revised to analyze cumulative effects of other mining projects based on a current assessment of which projects are reasonably foreseeable.	CU02
4453	The SDEIS [cumulative impacts section] must be revised to include planned expansions of mining, processing and tailings disposal at the PolyMet mine site, plant and tailings basin.	CU02, PD30
4454	The SDEIS must be rejected due to its inadequate analysis of mercury and methylmercury in the Partridge River watershed, the Embarrass River watershed and the St. Louis River. The SDEIS must be redone to appropriately analyze and model all of these impacts of mercury and methylmercury.	MERC04, MERC19
4455	WaterLegacy believes the PolyMet project must be rejected due to violations of water quality standards limiting mercury in the Lake Superior Basin and impaired waters and due to the substantial and unacceptable impacts of methylmercury bioaccumulation on the environment, human health, tribal resources and environmental justice.	CR01
4456	PolyMet's use of Colby Lake water for stream augmentation would violate water quality standards and increase mercury loading to a high-risk methylating environment.	WR184
4457	The PolyMet SDEIS does not discuss how pumping water from Colby Lake to augment streams in the project area can be reconciled with Minnesota water quality standards limiting mercury discharge.	WR184
4458	The PolyMet SDEIS understates and inadequately analyzes mercury air deposition and mercury seepage to groundwater at both the mine site and plant site.	AIR05, MERC20
4459	Analysis of mercury air emissions and deposition from the PolyMet mine site and plant site is incomplete and inadequate.	AIR05

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4460	The SDEIS states that no air emissions risk assessment was performed for local mercury deposition at the mine site because potential emissions are less than 1.0 pounds per year. (SDEIS, p. 5-431). Although this screening may be appropriate for dispersed smokestack emissions, it is an inappropriate exclusion for mercury contained in mine site particles, most if not all of which should be assumed to deposit locally in the Partridge River watershed.	AIR05
4461	In addition, the PolyMet SDEIS' analysis of plant site mercury emissions is incomplete...The analysis does not consider deposition of mercury from the plant site to the Second Creek watershed, which is immediately adjacent to the plant site and is neither part of the Colby Lake watershed nor the watersheds for Embarrass River lakes.	AIR05, MERC08
4462	In addition, the SDEIS' assumption that there is a simple linear relationship between mercury deposition to a water body and fish tissue methylmercury concentrations (SDEIS, p. 5-21) is too narrow... An increase in sulfate to sulfate-limited methylating environments, along with an increase in mercury deposition could have a synergistic and multiplicative effect on methylmercury concentrations.	MERC02, MERC08
4463	The PolyMet SDEIS fails to provide high-quality information and analysis regarding mercury seepage and indirect discharges to surface waters.	MERC04, MERC20
4464	The PolyMet SDEIS does not provide high-quality information as to potential mercury seepage from mine and tailings sites. The SDEIS contains no information regarding mercury levels in groundwater seepage or surface water from mine or tailings basin sites.	MERC20
4569	The SDEIS does not disclose mercury concentrations or leach test results from overburden or peat. However, technical documents contain the results of leach tests on both.	MERC20
4570	The SDEIS fails to discuss testing updates to determine mercury releases from waste rock.	MERC20
4571	The PolyMet SDEIS needs to reconcile various test results and provide mercury leachate results for all categories of waste rock and a reasonable range of predictions of mercury release through seepage.	MERC04, MERC20
4572	The PolyMet SDEIS states that the tailings basin would receive inputs of mercury from residual concentrations in the tailings and process consumables, with contributions from Colby Lake makeup water and Mine Site process water. (SDEIS, p. 5-205). However, no analysis is provided from which a decision-maker or citizen could determine the mercury mass and concentrations that are deposited to the tailings piles.	MERC04, MERC20
4573	The SDEIS states that process and tailings water samples from a pilot study conducted with NorthMet ore were found to have mercury concentrations of 11.2 and 0.7 ng/L, respectively and that mercury loadings to the Tailings Basin are estimated to be 16.2 pounds per year. (SDEIS, pp. 5-205, 5-206). No reference is cited for this data. The SDEIS also asserts, again without a citation, that "about 95 percent of the mercury originating in the ore is expected to remain within—or be adsorbed to—the tailings and the hydrometallurgical residue, where it would remain isolated from further transport to the environment." (SDEIS, p. 5-431)	MERC04
4574	The PolyMet SDEIS assumes that mercury concentrations in untreated tailings basin seepage will be 1.1 ng/L; runoff will range from 1.1 ng/L if it interacts with tailings, to 3.5 ng/L if it does not interact with tailings; and tailings basin pond water will be 2.0 ng/l. (SDEIS, p. 5-206). However, even the reports prepared on PolyMet's behalf do not support these assumptions.	MERC04
4575	The PolyMet SDEIS contains no explanation of mercury removal technologies that would be provided at the WWTP. By assuming that WWTP influent will not exceed 1.3 ng/L, the PolyMet SDEIS avoids the question of what treatment and at what cost would be needed if the WWTP had to significantly reduce mercury concentrations in order to comply with the Great Lakes standard.	MERC15

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
4576	The PolyMet SDEIS provides no information as to the amount of mercury contained in the hydrometallurgical residue and avoids any discussion of its impacts by assuming that leakage from this facility “would be negligible.” (SDEIS, p. 5-157).	MERC12
4577	The PolyMet SDEIS’ assessment of the risks of mercury methylation and bioaccumulation is inadequate.	MERC03
4578	The PolyMet SDEIS does not evaluate the reasonably foreseeable impacts of the Proposed Action on mercury methylation and bioaccumulation.	MERC23
4579	Although it is undisputed that the risk of methylmercury is significant and that the PolyMet project would affect high-risk areas for mercury methylation, the PolyMet SDEIS makes no attempt to analyze the risk of mercury methylation locally and downstream as a result of air emissions, water discharges and hydrological changes at the proposed PolyMet mine and plant site.	AIR06, MERC08
4580	The PolyMet SDEIS does not assess impacts of particulate air emissions and ore spillage on mercury methylation.	AIR05
4581	The PolyMet SDEIS does not discuss the impacts of sulfur from particulate emissions on mercury methylation. Particulate emissions from both the mine site and the plant site are substantial.	AIR10
4582	The PolyMet SDEIS does not disclose the level of sulfur in these various particulates or analyze to what degree and in what areas sulfur in particulate deposition would contribute to mercury methylation in wetlands at and near the project area.	MERC08
4583	The PolyMet SDEIS’ analysis of mine site and tailings site sulfate seepage and mercury methylation is inadequate and inconsistent with applicable law.	MERC20
4584	The PolyMet SDEIS acknowledges that the project will increase the sulfate load in the Partridge River. (SDEIS, p. 5-208). However, the SDEIS provides no analysis of how sulfate discharge at the mine site, along with the air deposition and ore spillage previously described, would predictably increase mercury methylation in sulfate-limited waters.	MERC08
4585	As discussed in Section II of these comments, mine site sulfate discharges are underestimated and seepage will occur in additional directions, potentially impacting more wetlands.	WR070, WR174
4586	PolyMet mine site deposition of sulfur-bearing particles and discharge of sulfates are of particular concern for mercury methylation, since mine site wetlands and waters are likely to be low-sulfate waters where sulfate inputs would increase mercury methylation. (See SDEIS, p. 5-208). WaterLegacy found no sulfate monitoring data for the mine site wetlands within surficial groundwater flow paths.	MERC08
4587	The SDEIS supplies no predictions of sulfate levels in tailings pore water or in seepage to groundwater beneath the tailings pile.	WR060
4588	PolyMet SDEIS assumption of more than 99 percent collection of tailings seepage is unsubstantiated and unreasonable. Analysis of both the volume and concentration of sulfates in uncaptured and undiluted groundwater seepage must be provided in a revised SDEIS.	WR018
4589	The PolyMet SDEIS comparison of Proposed Action water quality impacts at the tailing site to “Existing Conditions” rather than the foreseeable improvements that would result from the No Action alternative is inconsistent with federal regulations and inconsistent with the Consent Decree for the existing Cliff Erie LTVSMC tailings basin.	WR108
4590	Reduction of sulfate discharge from the LTVSMC tailings basin does not depend on approval of the PolyMet project; it is required by law. Effects of tailings basin discharge from the PolyMet Proposed Action must be compared to a “no action” baseline that includes remediation to comply with water quality standards and with the Cliffs Erie Consent Decree.	ALT14

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4591	The SDEIS acknowledges that hydrologic changes and water level fluctuations increase methylation of mercury: ... Thus, hydrologic changes and water level fluctuations can stimulate mercury methylation and enhance bioaccumulation. (SDEIS, p. 5-210)[.] The PolyMet SDEIS makes no effort to apply this scientific research to describe, let alone quantify, risks from the Proposed Action. This omission must be rectified.	MERC11
4592	The PolyMet SDEIS must be redone to analyze cumulative impacts on mercury bioaccumulation in the St. Louis River and more thoroughly analyze cumulative impacts of mercury on human health and environmental justice.	HU01
4593	The PolyMet SDEIS denies that mercury and sulfate loadings from the Proposed Action have the potential for cumulative effects on water quality in the St. Louis River. (SDEIS, p. 6-18). The PolyMet SDEIS then fails to consider the potential for cumulative effects on water quality in the St. Louis River of mercury methylation near the project area flushed downstream during storm events or bioaccumulating in the food chain.	MERC10
4594	comparison of tailings basin sulfate releases with “continuation of existing conditions,” rather than a reasonable no action baseline, distorts predictions of sulfate loading to the Embarrass River Watershed.	WR083
4595	PolyMet cumulative mercury and methylmercury impacts are likely to have unacceptable environmental, health and environmental justice effects.	MERC24
4777	The SDEIS analysis must recognize the cumulative risks from adding additional incremental mercury and methylmercury to an area where fish tissue mercury already poses significant hazards.	MERC10
4778	The SDEIS must also be revised to provide a more robust and candid health risk assessment for mercury.	HU01
4779	The revised SDEIS should place mercury deposition to Embarrass River lakes in context by disclosing the actual Hazard Quotient in these lakes...What theSDEIS fails to mention is that actual Hazard Quotients for the Embarrass chain of lakes are far above 1...The health risk for subsistence anglers or subsistence tribal members relying on fish from these lakes would be up to 15 times the EPA-assumed safe intake level for a pregnant mother or child underthe age of 15.	HU01
4780	Not only would mercury and methylmercury increases from the PolyMet project impact downstream water bodies already impaired due to excessive mercury in fish tissue, these increases would also affect tribal waters, treaty lands where tribes have the right to hunt, fish and gather for subsistence, Lake Superior’s largest tributary, a critical estuary, and a region where a dismayingly large proportion of infants are born with unsafe mercury levels in their blood. WaterLegacy believes that this PolyMet mine project in this particular location would pose an unacceptable cumulative risk to human health and to environmental justice.	HU01
5012	The PolyMet SDEIS’ analysis of water quality impacts from PolyMet’s proposed open-pit sulfide mine and other mine site features relies on inaccurate modeling, unsubstantiated and unreasonable assumptions, as well as insufficient data. The SDEIS water quality model outcomes seem to be determined by its assumptions, rather than arrived at by an objective and independent analysis. The SDEIS must be redone to address multiple inadequacies, which are likely to understate water quality impacts.	WR060, WR064, WR071, WR115, WR149, WR172, WR175, WR189
5013	The PolyMet SDEIS incorrectly models Partridge River baseflow.	WR003
5014	Both tribal scientists and MDNR scientists concur that it is likely the SDEIS modeling for the mine site uses an inaccurate deterministic baseflow input, and that a more realistic value would be approximately three times the input used in the SDEIS.	WR003
5015	PolyMet SDEIS’ water quality modeling rests on inaccurate and unsubstantiated assumptions regarding fractures, hydraulic conductivities and pollution transport through bedrock faults and surficial materials.	WR011, WR012, WR061, WR071, WR073, WR087, WR099

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5016	The SDEIS modeling of attenuation through soils results in a prediction that copper, nickel and arsenic will take thousands of years to travel from source areas to evaluation locations or the Partridge River. (SDEIS, p. 5-56). This attenuation model does not consider transport through fractures or other high porosity features.	WR012, WR058
5017	The SDEIS must be revised to consider the presence of known bedrock fractures transecting mine site pits and beneath mine site contaminant sources in calculating potential water quality impacts.	WR012
5018	PolyMet SDEIS' assumptions regarding Category 1 waste rock pile seepage, collection and reactivity underestimate water quality impacts.	WR025
5019	the PolyMet SDEIS uses an unsubstantiated deterministic input to model more than a 90 percent collection rate of all seepage from the unlined Category 1 waste rock pile. No field experience supports this presumed collection rate, and PolyMet's own work plan requires engineered systems to be modeled as probabilistic inputs. Finally, SDEIS assumptions regarding the efficacy of seepage reduction from its proposed cover system lack data support and may be overstated.	WR017, WR127
5020	The SDEIS assumption that all Category 1 seepage will migrate to the West Pit is unsupportable.	WR017, WR073, WR088, WR089
5021	Where faults transect the West Pit, the direction of flow for contaminated seepage both during operations and after closure must be analyzed, not assumed.	WR010
5022	Containment efficacy for the mine site collection system is unsubstantiated and modeling of uncaptured seepage is unreasonable.	WR017
5023	The SDEIS provides no data or field experience suggesting that compacted soil or clay could withstand hydraulic forces over time, that gravity flow in the trench would maintain a gradient to resist drainage passing through the compacted soil trench wall or that a slotted drain pipe would remain unclogged. The sole support for the claim that "nearly all" seepage would be collected by the proposed perimeter trench and dirt wall is as follows: The geologic conditions are favorable for a cutoff wall due to the presence of low permeability bedrock. Performance modeling of the containment systems performed by PolyMet and reviewed by the Co-leads provides strong evidence that the capture efficiency would be greater than 90 percent. (SDEIS, p. 3-47)	PD03, WR019
5024	The SDEIS does not disclose the volume or concentration of seepage that would result if the cover was not provided or was ineffective. However, the SDEIS states that water modeling indicates that "for many constituents, this stockpile would be the largest source of constituent load" if seepage were to be captured and routed to the West Pit. The SDEIS further states that the Category 1 cover system "would be the primary engineering control" that limits constituent loading from the stockpile. (SDEIS, p. 5-213). Neither seepage collection assumptions nor postclosure seepage reduction assumptions for the Category 1 waste rock pile are adequately substantiated.	PD16, WR017, WR127
5025	The SDEIS understates the potential of acid generation and solute leachate from the Category 1 waste rock pile and the mine pits.	WR001, WR025
5026	The SDEIS also fails to substantiate the efficacy of subaqueous disposal in preventing acid mine drainage and high levels of solutes in the East Pit and West Pit during reclamation. No field experience at other mines is cited.	WR024
5027	The PolyMet SDEIS' assessment of mine site compliance with water quality standards is misleading. Scrutiny suggests that standards will not be met.	WR107

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5028	As discussed above, the SDEIS minimizes potential discharge from mine site contaminant sources by underestimating Partridge River base flow through the site, by denying the potential for propagation through higher conductivity pathways in surficial materials and bedrock, by excluding flow paths to the north and northeast of the mine site, by imposing concentration caps, and by assuming collection and reduction of seepage based on models unsubstantiated by field experience.	WR005, WR017, WR018, WR033, WR091, WR167
5029	Other sections of WaterLegacy’s comments demonstrate that the SDEIS fails to analyze mercury discharge either from the mine site or plant and that sulfate discharge and its impacts on wild rice are inadequately and improperly assessed. The SDEIS also does not analyze specific conductance, or potential impacts of degradation of water quality on aquatic life	AQ05, AQ14, MERC08, MERC17
5030	Throughout our review of the SDEIS, WaterLegacy has been concerned that the SDEIS reflects advocacy for the project, rather an independent “hard look” at scientific evidence. Some specific instances of misleading edits, phrasing and omissions are highlighted in this section. In addition, despite gaps and assumptions in the SDEIS that serve to minimize potential water quality violations, WaterLegacy believes there is sufficient evidence related to mine site contaminant sources to identify excursions from water quality standards.	WR107
5031	The PolyMet SDEIS’ analysis of whether discharge to shallow groundwater will meet surface water quality requirements is misleading.	WR115, WR195
5032	The SDEIS’ language and analysis undermines the ability of either decision-makers or the public to evaluate whether PolyMet’s discharge of pollutants to shallow groundwater connected to surface water will comply with surface water quality standards. The SDEIS provides an inadequate basis for regulation to protect surface water quality. This deficiency is also reflected in SDEIS analysis of seepage from the tailings basin, where only groundwater standards are applied as evaluation criteria.	WR010, WR112
5033	the SDEIS contains no analysis of where pollutants discharged at either the mine site or the tailings site will first daylight to groundwater.	WR093, WR167
5190	Other decisions as to which data is presented in the SDEIS may also conceal rather than disclose water quality risks. For example, critical information on the amount of groundwater flow from various mine site contaminant sources and the time it would take for pollution migration is only disclosed for the P50 model, not the foreseeable P90 greater risk.	WR060, WR064, WR173
5191	The PolyMet SDEIS does not evaluate water quality at the nearest points where compliance with surface water quality standards would be required.	WR064, WR177
5192	As previously discussed, the PolyMet SDEIS does not evaluate seepage from the Category 1 waste rock pile toward the Hundred Mile Swamp or north or northwest to the Partridge River. Even for the flowpaths from mine site contaminants on the south of the site, “evaluation locations” are not equivalent to CWA compliance points.	WR081, WR167, WR177
5193	Not only does the SDEIS fail to analyze compliance with surface water quality standards where contaminants from mine site first daylight to wetlands. Yet more striking, the SDEIS fails to assess compliance with water quality standards at the “surface water release” points, as defined in the text of Table 5.2.2-8 above, where contaminants first reach the Partridge River.	WR017, WR173, WR176, WR189
5195	Even with the PolyMet SDEIS’ incomplete analysis, modeling shows mine site discharge excursions from water quality standards.	WR107, WR109
5196	As detailed above, the SDEIS model of pollutants from mine site contaminant sources understates the concentrations likely to be found in mine site surficial flowpaths. However, even using only the data that the SDEIS has provided, modeling indicates that mine site discharge would cause or contribute to violations of surface water quality standards. The SDEIS either fails to identify these excursions or attributes them to another source.	WR115, WR172

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
15197	In its primary data table, the SDEIS also fails to provide information about contaminant levels from the West Pit flowpath at the Partridge River location where it is clear that groundwater discharges to surface water.	WR173
15199	The SDEIS seems to misdirect attention away from, rather than candidly disclose, these violations of numeric WQS.	WR109
15200	The PolyMet SDEIS provides unsubstantiated and unreasonable predictions of seepage of untreated contaminants from the tailings piles. This flawed and overly optimistic analysis affects predictions of drinking water contamination, compliance with surface water quality standards, impacts on aquatic life, effects on natural stands of wild rice and increases in downstream mercury methylation due to sulfate loading in the St. Louis River as well as the Partridge River and Embarrass River watersheds.	PD08
15201	In addition, SDEIS disclosure of solute levels and of the assumptions behind its modeling of seepage concentrations is opaque and insufficient. The concentration of solutes in seepage is likely to affect predictions of contaminants in treated effluent as well as in untreated seepage escaping the tailings basin. Even with current modeling, discharge of treated effluent is likely to cause or contribute to excursions from water quality standards for aluminum, lead and selenium.	WR059, WR064, WR147, WR189
15202	NEPA requires that an EIS must use “high quality” information and “accurate scientific analysis.” 40 C.F.R. §1500.1(b). The PolyMet SDEIS water quality predictions from tailings basin seepage do not meet this test. The SDEIS must be rejected as inadequate on this basis alone, and supplemental and transparent modeling on tailings water quality issues must be included in a revised SDEIS, available for public review and comment.	GT11, WR049, WR050
15203	SDEIS tailings seepage collection assumptions are unsubstantiated and unreasonable.	PD08
15204	The SDEIS assumption of nearly perfect seepage collection is the critical foundation upon which all claims that PolyMet might comply with water quality standards downstream of the tailings piles rely. This assumption is unreasonable, unfounded, inconsistent with site conditions and inconsistent with the Modeling Work Plan methodology adopted by PolyMet and the Co-Lead Agencies.	PD08
15205	The PolyMet SDEIS modeling explicitly assumes that its row of pumps will capture 100 percent of the surface seepage and 90 percent of the 209 gpm of groundwater seepage on the north, northwest and west sides of the tailings site. (SDEIS, p. 5-159). By analyzing no other release of untreated seeps from the tailings site, the SDEIS also assumes that no seepage will be released into Second Creek and that no seepage will drain into groundwater beneath the vast, unlined tailings piles through fractures, and that neither historic streams nor changes in topography will carry seepage to the east of the tailings piles as tailings are deposited. Each of these claims is unreasonable and unfounded.	WR012, WR018, WR020, WR054, WR056, WR061, WR099, WR101, WR117, WR118
15206	PolyMet tailings pile seepage collection claims are not supported by field experience.	WR020
15207	Despite formal requests for substantiation, the Lead Agencies have provided no documentation verifying that field experience supports their claim that virtually all seepage can be captured with a pump collection system at an unlined tailing basin.	WR180
15208	Water inflow to the tailings site during PolyMet’s operations will increase groundwater seepage.	WR057
15209	The PolyMet SDEIS provides no water balance information from which to determine the volume of water that would be in the tailings piles during operation and closure. No information is provided from which one might calculate the downward pressure or “head” that would result from the height of the water. Ongoing review of the hydraulic conductivity and storage coefficients of surficial and bedrock materials suggest that PolyMet SDEIS models may be erroneous.	WR057, WR095, WR105

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5210	Seepage from PolyMet’s tailings will discharge untreated through fractures, faults and historic streams beneath the tailings.	WR010, WR011, WR012, WR061, WR071, WR090, WR092, WR096, WR099, WR104
5211	The PolyMet SDEIS misrepresents and overlooks available information regarding tailings site geology. The SDEIS states, “Jennings and Reynolds (2005) mapped the surficial deposits around and beneath the Tailings Basin as Rainy Lobe Till, which functions as the surficial aquifer and is generally a boulder-rich till with high clay content” (SDEIS p. 4-95). However, the cited reference reports the surficial Rainy lobe till mapped in the vicinity of the proposed NorthMet project as “clay-poor.” Till matrix textures are reported to range from 48 to 87% sand, 9 to 40% silt and 0 to 13% clay, but “generally much less than 10% clay.” (Jennings and Reynolds, 2005). This is a sandy till, not a till with high clay content.	EDIT01
5212	Although the preliminary SDEIS referred to “fractured bedrock” beneath the tailings site (Preliminary SDEIS, May 2013, p. 5.2.2-58), the SDEIS released to the public in December 2013 does not contain a single reference to fractures that may be present at the tailings site. The map prepared by geologist J.D. Lehr, using Minnesota Geological Survey data and a 2011 statewide compilation of bedrock geology, shows several faults in the bedrock beneath the tailings site and the hydrometallurgical residue facility. <sup>25</sup> The SDEIS should have analyzed these fractures and their hydrologic relationship with surficial materials and shallow groundwater.	WR012, WR071, WR099
5213	the SDEIS does not discuss how the historic branches of the creek connected to Spring Mine Lake may affect groundwater flow beneath the tailings or how the increased height of the water table in PolyMet tailings may affect flow patterns on the east side.	WR102, WR104
5214	the elevation of Spring Mine Lake is 1,676 feet above sea level. Although the current Cell 1E and Cell 2E tailings piles are lower than Spring Mine Lake, the new water table in the PolyMet tailings would be higher than that of Spring Mine Lake, reversing the topography and potentially changing the flow of groundwater in sediments of the historic creek branching beneath the east side of the tailings. The PolyMet SDEIS fails to discuss or assess how increased tailings water table elevation would affect seepage toward the east of the tailings piles.	WR102
5215	Seepage from PolyMet’s tailings will discharge untreated to Second Creek, on the southeast side of the tailings piles.	WR117
5216	Statements in the SDEIS regarding groundwater seepage on the south side of the tailings site appear to be inconsistent. In one section, the SDEIS states, “Groundwater currently seeps from the existing LTVSMC Tailings Basin to the headwaters of Second Creek.” (SDEIS, p. 5-153) In another narrative, the SDEIS claims that there would be no impacts on wetlands resulting from changes in groundwater flow since, “All of the seepage from the south side of the Plant Site is surface water.” (SDEIS, p. 5-297).	EDIT01
5217	SDEIS disclosure of solute concentrations at the tailings site is opaque and unreliable, preventing verification of seepage concentration rates or concentration rates in treated effluent.	WR189
5218	The SDEIS provides very little information as to the concentration of contaminants at the tailings site.	WR030
5219	The SDEIS does not provide information on the volume of inputs and outputs to the tailings pond, tailings piles or WWTP. The SDEIS does not disclose modeled solute concentrations in the tailings pond, tailings pore water, tailings seepage or WWTP influent. The SDEIS does not specify the treatment or pre-treatment that will be used at the WWTP. Overall, even with the help of citizen chemists and engineers, it was not possible to understand, let alone verify, the key SDEIS assumptions regarding contaminant sources at the tailings site.	WR030, WR057, WR060, WR063, WR143, WR147

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5220	The SDEIS states that its predictions included a concentration cap, based on the assumption that tailings would have less than 0.12 percent sulfide and would never produce acid drainage. (SDEIS, p. 5-61, 5-160). Without disclosing predicted inputs to the tailings basin, the SDEIS provides insufficient information to substantiate this assumption. No explanation is provided as to the way in which a constant concentration would be maintained in several square miles of tailings piles receiving mine process water, tailings seepage, and beneficiation slurries at various times.	PD08, WR033
5221	The SDEIS statement that the proposed action “contaminant release parameters are based on a combination of laboratory tests and water quality observations at similar tailings facilities in northern Minnesota,” (SDEIS, p. 5-63) is un reassuring. Minnesota has no other tailings facilities for copper-nickel mines.	WR030
5222	The SDEIS states, “the operating configuration and requirements of the process units within the WWTP or the capacity of the WWTP could be modified to accommodate varying influent streams and discharge requirements.” (SDEIS, pp. ES-24, 5-214). The SDEIS may refer to this as “an adaptive engineering control,” but for either a decision-maker or a member of the public, this conceptual approach is insufficient to demonstrate water quality would be protected.	WR130, WR143
5223	It is likely that PolyMet tailings basin seepage and WWTP effluent would cause or contribute to excursions from water quality standards.	WR064, WR108
5224	As described at length in the preceding sections, modeling assumptions for uncaptured seepage are unreasonable underestimates of volume. Concentrations of solutes in seepage are undisclosed, and may also be unreliable. Even within the limits of this model, tailings seepage in the North flowpath would violate the surface WQS for lead. The incremental increase in North flowpath manganese would also exceed Minnesota’s groundwater health risk limit.	WR010, WR018, WR019, WR059, WR060, WR064, WR071, WR082, WR090, WR099, WR108, WR109
5225	Lead and other contaminants are likely to surface in wetlands “within the surface watersheds immediately downstream of the Tailings Basin, which includes watersheds upstream of modeling locations.” (SDEIS, p. 5-308). But, even without considering the nearest point where lead would daylight to surface water, lead discharge from the North flowpath at Mud Lake Creek (2.5 µg/L) would exceed the applicable 1.3 µg/L chronic standard for lead in 50 mg/L hardness waters. Minn. R. 7050.0110, subp. 4.	WR059, WR064, WR082
5226	In the North flowpath, manganese concentrations at the property boundary are modeled at 759 µg/L in comparison to 522 µg/L under continuation of existing conditions. At the property boundary, where groundwater standards apply, not only is the modeled concentration seven-and-a-half times the manganese health risk limit (HRL), but the 237 µg/L modeled increase in manganese exceeds Minnesota’s 100 µg/L HRL set to protect infants from harm.	HU03, WR064, WR109
5227	The SDEIS suggests that aluminum exceedance is an artifact of the modeling. (SDEIS, p. 5-189). This may or may not be the case. The GoldSim model assumes that effluent from the mine site WWTF will meet the “target” of 125 µg/L. But this assumption may be unrealistic for the WWTF filtration plant. During mining operations, concentrations of aluminum in the west equalization basin for the WWTF would range as high as 530,000 µg/L of aluminum. <sup>32</sup> Without a more transparent disclosure of aluminum inputs to the tailings piles and the WWTP, it is not possible to discount the modeled exceedance from aluminum standards.	WR063, WR064, WR143
5228	Lead levels modeled for the PolyMet proposed action would cause or contribute to excursions from Minnesota’s WQS for lead. Lead concentrations for the proposed action increase in every tributary as compared with continuing existing conditions. Under the proposed action, lead levels at Mud Lake Creek MLC-3 (1.9 µg/L), Trimble Creek TC-1 (3 µg/L) and PM- 19 (2.9 µg/L), and Unnamed Creek PM-11 (3 µg/L) would all exceed the 1.3 µg/L chronic WQS for lead in Lake Superior Basin waters with hardness of 50 mg/L.	WR082

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5229	The PolyMet SDEIS provides unsubstantiated and unreasonable predictions of seepage of untreated contaminants from the tailings piles. This flawed and overly optimistic analysis affects predictions of drinking water contamination, compliance with surface water quality standards, impacts on aquatic life, effects on natural stands of wild rice and increases in downstream mercury methylation due to sulfate loading in the St. Louis River as well as the Partridge River and Embarrass River watersheds. The PolyMet SDEIS must be rejected as inadequate on this basis alone.	PD08, WR019, WR041, WR113, WR115
5230	The concentrations both in untreated seepage and in WWTP effluent depend on the levels of solutes in tailings site process water. In addition to revision of water quality models to include a realistic volume for untreated seepage, the concentration of solutes in tailings seepage, plant site pond and process water, and WWTP influent must be disclosed in a revised SDEIS so that models of water quality downstream of effluent can be verified.	WR060, WR063
5231	The Hydrometallurgical Residue Facility (HRF) will contain some of the most concentrated and toxic wastes produced by the PolyMet project. Yet, the SDEIS fails to disclose the chemical composition of these materials or explain the analysis that was done to determine whether or not they would pose hazards to the environment.	WR068
5232	The PolyMet plan selects an unsuitable location for the HRF, increasing risks of liner failure and instability at this permanent waste storage facility. The SDEIS inappropriately denies the potential for releases as result of liner leakage from the HRF. Planned management of the HRF is insufficient to reduce risks of significant releases.	PD17, PD19
5233	The PolyMet SDEIS provides inadequate information as to the nature and chemical characterization of HRF wastes.	PD18
5234	The SDEIS does not tell decision-makers or the public what concentration of acids, salts and metals is predicted for the hydrometallurgical process wastes and filtered sludge that would be deposited in the HRF. No documents among the SDEIS references model the overall chemistry of the hydrometallurgical residue facility at any relevant time period. Neither the SDEIS nor any document identified to date explains the analysis that was done by any regulatory agency to determine whether the HRF should or should not be characterized as hazardous waste.	PD17, PD18
5235	The SDEIS does not discuss the chemical composition or process by which the WWTF will produce filtered sludge... We've found no analysis of the volume or chemistry of the filtered sludge proposed to be deposited in the HRF. However, levels of sulfates and metals in reject concentrate, even before dewatering to form sludge, indicate that sludge may pose a hazard if released to the environment.	PD18
5236	The PolyMet SDEIS does not include a requirement that the HRF obtain a permit as a hazardous waste facility. Neither does the SDEIS contain any analysis of whether the HRF should be treated as a facility for storing hazardous wastes. This analysis is long overdue.	PD17
5237	The proposed location for the PolyMet hydrometallurgical residue facility is an unsuitable site.	PD19
5238	The PolyMet SDEIS proposes to construct the PolyMet hydrometallurgical residue facility on two shallow marsh wetlands totaling 36.1 acres...Minnesota law precludes establishment or construction of either a hazardous waste facility or an industrial solid waste facility in a "wetland" or in a location "where the topography, geology, hydrology, or soil is unsuitable for the protection of the ground water and the surface water." Minn. R. 7045.0460, subp. 2; Minn. R. 7035.1600. Location of the HRF on top of wetlands is prohibited pursuant to Minnesota rules.	PD19
5239	The PolyMet SDEIS inappropriately fails to consider liner leakage both within an expected leakage range and under conditions of liner integrity failure.	PD22
5240	The SDEIS fails to provide any analysis of the impacts of liner leakage on modeled water quality.	PD03

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5241	As a result of the liner stress posed by the proposed location of the HRF on top of shallow marshland, peat, slimes and other unconsolidated materials, failure of liner integrity is more likely. In addition, both the HRF process and the chemical trains for filtered sludge involved limestone or lime, creating high concentrations of calcium. The presence of these ions will increase the likelihood of failure of the second liner, the geosynthetic clay liner.	PD17
5242	Management of the hydrometallurgical residue facility is insufficient to reduce the risk of liner loss of integrity or impoundment failure.	PD17
5243	Minnesota rules ensure that a facility issued a hazardous waste permit or a state disposal system permit will be properly inspected and maintained and that long-term closure will reduce the risks that caustic or toxic wastes will be released. There is no such assurance for the HRF...The SDEIS does not propose any schedule for monitoring liquids removed from the leak detection system, or for inspections to ensure that the pumping system is not clogged due to solids accumulation.	PD17
5244	Although the SDEIS claims, “mitigation measures would be undertaken if there was any indication of potential solute releases to groundwater or surface water” from the HRF (SDEIS, pp. 5-89, 5-157), the nature of these measures is not specified. Short of excavating the hydrometallurgical residue facility, there is no mitigation that would restore the patency of a liner that has lost its integrity.	PD17
5245	The PolyMet SDEIS uses an unverified analog for indirect impacts on wetlands and unsubstantiated assumptions about impacts of mine drawdown, fragmentation, and pollution to understate the reasonably foreseeable indirect effects of the PolyMet open-pit mine, mine wastes, processing and tailings facilities. Despite these understatements, the PolyMet proposed action would have substantial and unacceptable impacts on aquatic resources of national importance.	WET08, WET19
5246	the PolyMet SDEIS plan for wetlands mitigation is inadequate. The SDEIS proposes wetlands mitigation for only 27 of up to 7,351 acres of wetlands that would be indirectly impacted by the proposed action. Even where mitigation is proposed, more than two-thirds of the compensatory acres and credits are outside the Lake Superior Basin. From a functional perspective, wetlands at the proposed PolyMet mine site are irreplaceable.	WET01, WET03, WET04
5247	Finally, no alternatives are analyzed in the PolyMet SDEIS, although both the underground mine project alternative and several mitigation alternatives discussed in Section XI of these comments would have the potential to reduce impacts on project area wetlands, including aquatic resources of national importance.	WET20
5248	The PolyMet SDEIS must be revised to model indirect wetlands impacts. The Clean Water Act Section 404 wetlands dredge and fill permit must be denied due to substantial and unacceptable impacts on wetlands, an inadequate mitigation plan and the failure to demonstrate that the proposed action is the least environmentally damaging practicable alternative.	WET08
5249	Construction of open pits, stockpiles and haul roads at the mine site could fragment wetlands. Groundwater drawdown from mine dewatering, groundwater mounding/drawdown from tailings basin seepage containment, and changes in stream flow could create hydrological effects converting one wetland type to another or converting a wetland to an upland. Changes in wetland water quality could impact the functions and values of remaining wetlands. (SDEIS, p. 225). As a result of all of these factors, in addition to direct destruction of wetlands, the PolyMet proposed action could indirectly affect up to 7,351 acres of wetlands at the mine site and tailings basin site (SDEIS, p. 5-224, 5-309), resulting in a total potential impact on 8,264 acres of wetlands.	WET24
5250	All wetlands in the Partridge River watershed impacted by the PolyMet project should be considered ARNI. Minnesota Biological Survey mapping shows that the Hundred Mile Swamp, Upper Partridge River and Partridge River Peatlands sites are all areas of high biological diversity.	WET19

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5251	In addition to the aquatic resources in the Partridge River Watershed, it is likely that there are wetlands near the tailings basin that should be considered aquatic resources of national importance.	WET19
5252	The PolyMet proposed action would have substantial and unacceptable adverse impacts on ARNI, which are poorly estimated and understated in the SDEIS.	WET19
5253	Direct wetlands destruction alone resulting from the PolyMet proposed action would constitute substantial adverse impacts on aquatic resources of national importance in the Partridge River watershed. Even before indirect wetlands effects are considered, net destruction of wetlands in the Partridge River watershed from the PolyMet project would result in net loss of 666 acres. According to the PolyMet SDEIS, this direct wetlands destruction from the proposed action would be 26 percent of the total historical and predicted loss of wetlands in the Partridge River watershed from all other sources. <sup>40</sup> This is a substantial and unacceptable loss of ARNI from a single project.	WET19
5254	The PolyMet SDEIS' analysis of reasonably foreseeable adverse indirect impacts on wetlands is inadequate and understates indirect impacts.	WET24
5255	The discussion of indirect wetlands impacts in the PolyMet SDEIS is inadequate and potentially misleading. The comparability of the Canisteo pit to the PolyMet mine pits for purposes of the "analog" estimates is unverified. Even applying the Canisteo pit proxy, the SDEIS' use of data seems selected to understate impacts.	WET08
5256	When incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, NEPA requires that the information be secured and included in an EIS. 40 §C.F.R. 22(a). In addition, under 40 C.F.R. §1500.1(b), an EIS must use "high quality" information and "accurate scientific analysis." The PolyMet SDEIS' analysis of indirect wetlands effects doesn't meet these tests.	WET01
5257	The SDEIS' heavy reliance on the Canisteo pit proxy to predict indirect wetland impacts also fails the accurate analysis test 40 C.F.R. §1500.1(b).	WET08
5258	The record is insufficient to verify the reliability of the Canisteo pit "analog" to estimate mine drawdown at the PolyMet mine site. Although the SDEIS claims that that the "geologic and hydrogeologic settings of the Mine Site are relatively similar to the Canisteo and Minntac sites." (SDEIS, p. 5-92), data does not support this conclusion. The PolyMet East pit would be 630 feet deep and the West Pit would be 696 feet deep, (SDEIS, p. ES-17), while the Canisteo pit averages 100 feet deep. <sup>41</sup> The PolyMet mine is underlain by Duluth Complex and Virginia Formation, while the Canisteo pit has thicker glacial till and is underlain by Biwabik Formation rock. (SDEIS, p. 5-92). Absent rigorous site-specific characterization of geology and hydrogeology at the mine site – which might obviate the need for an analog at all – there is no verification that mine drawdown at the Canisteo pit would be comparable to the PolyMet site.	WET08
5259	Apart from the inappropriate use of a Canisteo pit "analog" to estimate mine drawdown impacts, the SDEIS' assumptions underestimate reasonably foreseeable indirect impacts on wetlands. The SDEIS assumes that ombrotrophic coniferous bogs and open bogs would not be impacted by mine drawdown because their hydrology is supported by precipitation. (SDEIS, p. 5-243). But, "no data or research was used from actual wetlands responding to groundwater drawdown" was used in the SDEIS for conclusions regarding wetlands sensitivities.	WET10
5260	The SDEIS also apparently assumes that if changes in the average annual flow of the Partridge River would not diverge from naturally occurring variation, one could conclude that there were no potential indirect wetland effects for wetlands abutting the Partridge River. (SDEIS, p. 5-273). Finally, with respect to wetlands effects, the SDEIS concludes that the Partridge River "is likely to act as a natural barrier to the expansion of the cone of depression" for mine site drawdown. (SDEIS, p. 5-243). The PolyMet provided no testing data or research to support any of these assumptions.	WET08, WET10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5261	The PolyMet SDEIS does not consider the levels of sulfates or metals in “dust” deposited or the effects these specific chemicals might have on wetlands. The SDEIS assumes that there would be no effects on wetlands unless dust levels were sufficient to interfere with photosynthesis, and set the threshold for this effect at doubling the existing levels of background deposition.	WET11
5262	Perhaps the clearest example of the SDEIS’ inadequacy in characterizing reasonably foreseeable wetlands impacts is on the mine site itself. On the mine site alone, 540 acres of wetlands would remain vulnerable to impairment and destruction after 758 acres of mine site wetlands are destroyed as a result of constructing mine pits, waste rock piles and other mine features. (SDEIS, p. 5-224). It is likely that all of these wetlands would be adversely affected by fragmentation, hydrologic changes, water pollution, air deposition or a combination of the above.	WET07
5263	The PolyMet proposed action would have substantial and unacceptable adverse impacts on ARNI as a result of fragmentation, mine drawdown, hydrologic changes, water and air pollution.	WET19
5264	The SDEIS also fails to identify the total acres of wetlands in the Partridge River and Embarrass River watersheds where adverse impacts are “reasonably foreseeable,” whether as a result of fragmentation, mine drawdown, hydrologic changes, seepages, leaks, spills or deposition of contaminants. The SDEIS is inadequate without this assessment and must be revised to clearly state and justify on a sound scientific basis the reasonably foreseeable direct and indirect effects on wetlands from the PolyMet proposed action. <sup>47</sup> Until that time, no mitigation plan can be evaluated and no Section 404 permit issued.	WET07
5265	WaterLegacy believes that the PolyMet project would have substantial and unacceptable adverse impacts on wetlands and ARNI, in particular. The PolyMet project’s potential direct and indirect impact to 8,264 acres of wetlands would dwarf both the historic wetlands destruction and the projected cumulative wetlands destruction from all other sources in the Partridge River watershed (2,557 acres) and the Embarrass River watershed (402 acres). (SDEIS, Table 6.2-9, p. 6-38; Table 6.2-12, p. 6-41).	WET19
5266	The PolyMet plan for wetlands mitigation is plainly inadequate.A. The PolyMet plan fails to compensate for indirect adverse impacts on wetlands.	WET01
5267	The PolyMet SDEIS contains no discussion of where or how additional compensatory mitigation would be provided for indirect wetlands impacts.	WET01
5268	The vague and indefinite possibility of subsequent compensation for adverse impacts on wetlands resulting from fragmentation, mine drawdown, hydrologic changes, water pollution and air deposition in the PolyMet SDEIS fails to adequately protect ARNI and other wetlands resources under the Clean Water Act.	WET19
5269	The PolyMet plan fails to provide mitigation for direct adverse impacts on wetlands within the Lake Superior Basin.	WET04
5270	PolyMet’s mitigation plan for direct destruction of wetlands, as reflected in the SDEIS, proposes 101.8 acres of on-site future restoration, plus 530.9 acres of restoration or preservation at the Zim wetlands bank in the St. Louis River/Great Lakes Basin. The balance of mitigation project acreage —68 percent of the total – are proposed are in Aitkin and Hinckley, both geographically and ecologically remote from the project impacts. (SDEIS, Table 5.2.3-18, p. 5-327). When wetlands restoration credits are evaluated, even a higher percentage – 72 percent of the total – are located outside the 8-digit HUC watershed where the PolyMet proposed action would destroy wetlands in the Partridge and Embarrass River watersheds. (Id.) The SDEIS plan for wetlands compensation is inadequate, even for direct wetlands impacts.	WET01, WET03
5271	The PolyMet wetlands compensation plan does not provide ecologically equivalent wetlands functionality within the Lake Superior Basin.	WET03
5272	The PolyMet proposed action is not the least environmentally damaging practicable alternative as required under the Clean Water Act Section 404.	ALT20

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5273	a Section 404 dredge and fill permit may not be issued under the Clean Water Act unless it is the least environmentally damaging practicable alternative to a dredge and fill project that would impact wetlands and headwaters streams. The PolyMet proposed action does not meet this test.	ALT20
5274	Project and mitigation alternatives described in Section XI of these comments would reduce the direct or indirect impacts to wetlands and ARNI. An underground mining alternative would greatly minimize wetlands destruction. The West Pit Backfill alternative would allow for wetlands restoration, and placement of permanent sources of contaminants above liners would reduce seepage impacts on adjacent wetlands. Construction of Mine Site Reverse Osmosis in Year One would allow mitigation of both pollution and drawdown impacts to Partridge River watershed high-value wetlands and ARNI.	ALT01, ALT03, ALT06, ALT13
5275	The SDEIS proposes a land exchange as a necessary precondition for PolyMet’s open-pit mine project. Although this project meets PolyMet’s interest in an open-pit mine and may reduce “conflict” between the U.S. Forest Service and the company, the proposed land exchange is unlikely to meet the financial requirements of the Federal Land Planning and Management Act, is not in the public interest, conflicts with the Forest Plan, and would adversely impact environmental and tribal resources.	LAN02
5276	The PolyMet SDEIS fails to disclose appraisal information to confirm that the exchange would not give a favorable deal for PolyMet - at taxpayers’ expense - and fails to evaluate impacts on aquatic resources of national importance within the Lake Superior Basin.	LAN03
5277	The PolyMet SDEIS does not demonstrate that the land exchange would comply with law written to protect the public from unfair trades.	LAN03
5278	The SDEIS provides no information demonstrating that either the proposed or the alternative land exchange would comply with Federal Land Planning and Management Act (FLPMA) requirements.	LAN02
5279	Despite requests by WaterLegacy both in the scoping process and pursuant to the FOIA, the Forest Service has declined to provide appraisal information to allow members of the public to verify that the PolyMet exchange would be equitable. Particularly in light of the Forest Service’s definition of its interest solely in terms of furthering minerals production, disclosure of appraisals for early and public scrutiny is necessary to ascertain whether the proposed exchange is an unequal trade, benefitting PolyMet at the expense of citizens and taxpayers.	LAN03
5281	The purpose and need for the land exchange asserted in the SDEIS serves a single private interest, not the public interest.	NEPA04
5282	The purpose and need for the PolyMet land exchange stated in the PolyMet SDEIS reflects a singular interest of the PolyMet corporation in open-pit mining in a certain location, not the broad range of uses and values that would serve the public interest.	NEPA04
5283	The exchange of federal lands for private lands with split ownership and severed mineral rights would be contrary to federal regulations and the public interest.	LAN04
5284	The proposed land exchange would be inconsistent with provisions of the Superior National Forest Plan that protect ecological values and would diminish the environmental value of the federal estate.	LAN04
5285	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Management activities do not reduce existing quality of surface or groundwater or impair designated uses of surface and ground water.” (Forest Plan D-WS-4, p. 2-10)	WR107

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5286	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Water in lakes, streams, and wetlands meets or exceeds State water qualityrequirements.” (Forest Plan, D-WS-5 p. 2-10)	WR107
5287	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Improve and protect watershed conditions to provide the water quality, water quantity, and soil productivity necessary to support ecological functions and intended beneficial water uses.” (Forest Plan, O-WS-1, p. 2-12)	WR107
5288	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Wetland impacts will be avoided whenever possible. Where impacts are unavoidable, minimize and compensate for loss when undertaking projects.” (Forest Plan, G-WS-13, p. 2-15)	WET16
5289	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Wetlands will be managed to prevent the reduction of their water quality, fish and wildlife habitat, and aesthetic values. Management actions will not reduce water quality within a wetland, or upstream or downstream of a wetland, unless restoration of natural conditions is the primary goal of the activity.” (Forest Plan, G-WS-15, p. 2-15)	WET16
5290	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Increase acres of old-growth lowland black spruce and tamarack forest communities.” (Forest Plan, O-VG-16, p. 2-24)	VEG03
5291	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“[M]aintain the characteristics of mature or older native upland forest vegetationcommunities and promote the maintenance or development of interior forest habitat conditions.” (Forest Plan, O-VG-17, p. 2-24)	VEG03
5292	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Contribute to the conservation and recovery of federally-listed, proposed, or candidate threatened and endangered species and the habitats upon which these species depend.” (Forest Plan, D-WL-3(c), p. 2-27)“Maintain, protect, or improve habitat for all threatened and endangered species by emphasizing and working toward the goals and objectives of federal recovery plans and management direction in the Forest Plan. (Forest Plan, O-WL-4, p. 2-29)	WI12
5293	The PolyMet SDEIS does not discuss various Forest Plan provisions that pose conflicts with the PolyMet proposed action. The land exchange and the PolyMet open-pit mine would be inconsistent with these provisions protecting water, wetlands, wildlife and forest resources:“Avoid or minimize negative impacts to known occurrences of sensitive species. (Forest Plan, G-WL-11, p. 2-31)	WI12
5294	Although other aspects of the land exchange are analyzed in some detail, the PolyMet SDEIS provides little discussion of the effects of the proposed land exchange on wetlands and headwater streams within the Lake Superior Basin that serve critical functions for nationally and internationally important waters. SDEIS land exchange sections don’t explain that losses of firstorder headwaters streams, second-order streams and wetlands can have significant impacts on downstream water quality, wildlife, and fisheries.	AQ29, WET14, WET19

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5295	The PolyMet land exchange would impair tribal resources in the Ceded Territories and conflict with tribal land resource management.	CR01
5296	The proposed land exchange would neither protect access to cultural resources nor protect the ecosystems upon which tribal rights to fish, hunt and gather plants depend.	CR01, CR05
5297	The PolyMet SDEIS fails to analyze specific conductivity, a pollutant limited by Minnesota water quality standards, which is known to be a stressor for aquatic life. Even though existing tailings basin seeps have exceeded standards for specific conductivity, the SDEIS neither reports existing conditions nor models impacts of the proposed action on specific conductivity.	AQ14, WR064
5298	The SDEIS recognizes that levels of many pollutants would increase were the proposed action approved, and that the proposed project would have a potential cumulative adverse impact on aquatic life. What is lacking in this analysis is a discussion of the significance of this adverse impact and its relationship to legal standards preventing degradation of water quality.	AQ27
5299	The SDEIS provides no data on specific conductivity in waters near the PolyMet site and no information to help decision-makers evaluate whether the PolyMet surface mine would impair aquatic life at or downstream of the project site as a result of high conductance. However, Barr reports included as references to the SDEIS demonstrate that discharge from the existing LTVSMC tailings basin violates Minnesota's specific conductance standard and that specific conductance is elevated in streams near the project area with aquatic life impairments.	AQ06, AQ14
5300	In order for the SDEIS to evaluate impacts of the PolyMet proposed action on aquatic life, both specific conductance in the affected environment and predicted levels of this pollutant resulting from the proposed action must be analyzed.	AQ14
5301	The SDEIS must assess the significance of water quality degradation from the PolyMet proposed action to aquatic life and test leachates for aquatic toxicity.	AQ06, AQ27
5302	The SDEIS does not reach a conclusion as to the significance of the impacts of these increased pollutants on aquatic life. This evaluation must be addressed in the SDEIS, not passed off for possible consideration in permitting (SDEIS, p. 6-61).	AQ27
5303	The SDEIS' analysis of potential adverse effects to aquatic life from increased metal releases has two important gaps. The SDEIS does not assess the significance of degradation of downstream waters on aquatic life. In addition, the SDEIS does not discuss the potential toxicity of leachates from sulfide mine wastes, tailings and residues...Toxicity testing of mine waste, tailings basin and hydrometallurgical residue facility leachates prior to finalizing the SDEIS would identify risks to aquatic life from inorganic ions as well as from metals solutes.	AQ06, AQ27
5304	The SDEIS provides insufficient analysis and mitigation for hydrologic changes, particularly to the Partridge River watershed.	WR130, WR180
5305	The SDEIS' assessment and mitigation strategy for hydrologic impacts to the Embarrass River watershed may be incomplete or unrealistic. However, even this level of evaluation is lacking for the Partridge River watershed.	WR130
5306	The PolyMet SDEIS provides no assessment of effects of the project on the mine site Unnamed Creek, Wetlegs Creek, Longnose Creek, Wyman Creek or Yelp Creek. For Wetlegs, Wyman and Longnose, the SDEIS states that a lack of hydrologic impact was assumed, rather than analyzed. "No baseline flow data collection or hydrologic modeling was conducted for Wetlegs, Longnose, and Wyman creeks as the NorthMet Project Proposed Action is not expected to affect the hydrology of these streams." (SDEIS, p. 4-79). We were unable to locate any discussion in the SDEIS of hydrological impacts of the PolyMet project on Yelp Creek, immediately to the north of the mine site. We also found no discussion in the SDEIS of how mine drawdown during operations and WWTF discharge after approximately year 40 would affect aquatic functions in the Unnamed Creek on the PolyMet mine site.	WR071, WR081

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5307	The PolyMet SDEIS contains an inadequate and incomplete assessment of the potential health impacts of the proposed action.	HU01
5308	In the case of mercury and methylmercury, as described at length in Section I of these comments, data regarding emissions, mercury and sulfate discharge and hydrologic change is missing or inaccurately represented, and the SDEIS fails to evaluate the potential risk of increased methylmercury bioaccumulation in the food chain.	MERC04
5309	the SDEIS completely avoids analysis of certain risks of both air emissions and water discharge, distorts the evaluation of pollutants by using criteria that are not reflective of health risks, considers cumulative impacts of prior industry pollution as “background” and, over all, reflects an insufficient concern and transparency regarding health risks to workers and members of the public.	HU01
5310	The PolyMet SDEIS fails to analyze pertinent health risks posed by air emissions and water discharge from the proposed action.	HU01
5311	The SDEIS does not analyze health risks for on-site workers.	HU04
5312	The PolyMet SDEIS fails to consider any health impacts to workers who actually work on the mine site or plant site. Any references to worker health in the SDEIS only pertain to “offsite workers.” (See SDEIS, pp. 5-421, 5-422, 5-423, 5-425, 5-426). This is an inappropriate omission.	HU04
5313	Primary on-site risk drivers for mine site cancer would be dioxins and dibenzo(a,h)anthracene related to mine vehicle emissions. (SDEIS, p. 5-423). If risks to on-site workers were calculated, it is likely that they would be above Minnesota’s air emissions health threshold.	HU05
5314	At the plant site, again without analyzing mineral fibers, risk drivers for cancer and non-cancer health risks were similar to those at the mine site, excluding indeno(1,2,3-cd)pyrene and adding the additional risk of hydrochloric acid. (SDEIS, Table 5.2.7-21, p. 5-425). Even at the edge of PolyMet’s plant site property boundary, chronic risk from inhalation of pollutants would reach Minnesota’s non-cancer health risk threshold. (SDEIS, pp. 5-425; Table 5.2.7-22, p. 5-426).	HU05
5315	If risks to PolyMet’s on-site plant personnel were calculated, it is likely that they would exceed Minnesota thresholds for both cancer and non-cancer risks. Additional mitigation measures might be required to reduce on-site health risks. For example, the proposal to vent air exhaust from the crushing plant back into the plant (SDEIS, p. 5-442) might be re-considered.	HU05
5316	The PolyMet SDEIS’ discussion of the risks of mineral fibers minimizes their health risks and avoids any analysis of potential morbidity and mortality increases from exposure to fine particulates containing these materials.	HU01
5317	The SDEIS mischaracterizes the University of Minnesota (U of M) taconite worker study, saying the study concluded that “the worker exposure resulting in the increase in mortality is primarily due to commercial asbestos exposure and not the rock being mined (University of Minnesota 2013).” (5-439 to 5-440). Although the U of M study noted that the study could not completely control for the presence of commercial asbestos where data was lacking, the study clearly associate the risk of mesothelioma with exposure to elongate mineral particles (EMP) measured in taconite dust.	HU07
5318	The SDEIS states, “the potential exists for the release of amphibole mineral fibers from the proposed operations, which could pose a potential public health risk of uncertain magnitude.” (SDEIS, p. 5-439). This is insufficient analysis in a situation where a proposed action may pose a significant risk to workers and to public health.	HU01
5319	The PolyMet SDEIS must provide a detailed analysis of mesothelioma risks in consultation with the EPA and U of M researchers. This analysis could begin by estimating exposures to elongate mineral particles for workers at the PolyMet plant and evaluating those exposures in light of the U of M data that correlates EMP exposure with higher rates of mesothelioma. An effort should also be made to model other adverse health effects.	HU01

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5320	In addition to evaluating the mesothelioma risks to workers, the SDEIS should also estimate the volume and concentrations of fibers emitted in fine particulate matter and discharged with seepage to groundwater and surface water.	HU04
5321	However, the SDEIS fails to assess the cumulative health risks from air emissions resulting from coal combustion required to meet PolyMet project energy demands. It is wellknown that coal combustion emissions, including nitrogen oxides, sulfur dioxide, particulate matter, fine particulate matter, mercury and lead significantly impact human health. These impacts may not be experienced at the PolyMet property boundary, but they are project impacts that should be quantified and disclosed in the PolyMet SDEIS.	HU01
5322	The SDEIS' discussion of the impacts of the PolyMet project on arsenic is incomplete and fails to consider the adverse health impacts of this Group A human carcinogen (IRIS 2007).	HU01
5323	To evaluate the risks of the PolyMet proposal, the SDEIS must analyze actual increased risk of cancer as well as compliance with legal requirements.	HU01
5324	Even with all of the limiting assumptions in the SDEIS, PolyMet's modeled increase in arsenic (0.25 µg/L) for Colby Lake drinking water would increase cancer risk by more than Minnesota's 1 in 100,000 health threshold. Minn. R. 4717.7840, subp. 2B.	HU05
5325	The PolyMet SDEIS' inadequately evaluates the human health risks of discharge of pollutants that may affect drinking water.	HU01
5326	The PolyMet SDEIS does not provide either decision-makers or the public with information regarding potential health risks of PolyMet discharge. In fact, its "evaluation criteria" explicitly diverge from the applicable health-based standards.	HU01
5327	The SDEIS' comparison of modeled concentrations from PolyMet's discharge to a "continuation of existing conditions" scenario may also distort analysis of pollutants relevant to human health.	HU01
5328	The PolyMet SDEIS provides no information on environmental impacts if facilities at the mine site and plant site do not perform precisely as desired. When an agency is evaluating reasonably foreseeable significant adverse effects, risks of failure should be included in the analysis.	PD22
5329	The PolyMet SDEIS provides no evaluation of the probability or consequences of failure, accidents, or unanticipated effects of severe weather. Such an assessment must be provided to evaluate reasonably foreseeable significant adverse effects of the PolyMet mine, waste rock storage, tailings storage, and transportation and storage of contaminated process water, concentrates and sludge. The assessment of risks of failure would provide a factual foundation for financial assurance and to evaluate mitigation alternatives, both of which are currently lacking in the PolyMet SDEIS.	PD22, PD25
5330	If failures are not improbable and risks are significant, expanded waste rock piles must be factored into wetlands compensation. Similarly, foreseeable environmental consequences of slope failure of the permanent Category 1 waste rock pile may require reconsideration of the West Pit Backfill alternative to eliminate that impact.	ALT03
5331	Evaluation of the probability and consequences of tailings dam failure may result in assessment of alternatives to the modeled tailings storage design. The SDEIS states that the tailings design "meets the minimum Factor of Safety." (SDEIS, p. 5-566). The SDEIS does not demonstrate or even assert that the tailings storage design is optimized to reduce the risk of catastrophic failure.	PD11
5332	In Northeast Minnesota, the probability of extreme weather events is high – and increasing. The sumps and ponds at the mine site and the tailings and hydrometallurgical residue storage facilities at the plant site are vulnerable to flooding. PolyMet's geotechnical report does not say what level of rainfall was modeled as the "probable maximum precipitation" in evaluating tailings basin slope or dam failure.	GT05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5333	The SDEIS must evaluate the risks of rail accidents and pipeline breaches in the transportation corridor.	PD36
5334	The SDEIS must evaluate the risks of imperfection in collection and treatment of seepage and wastewater at the mine site and plant site.	PD07, PD15
5335	For permanent waste storage facilities and hundreds of years of wastewater treatment, the risks of failures and poor performance magnify. Such failures could create impacts on water quality, and must be evaluated as reasonably foreseeable adverse effects of the PolyMet proposal.	PD22, WR202
5336	The SDEIS provides little information about financial assurance for the PolyMet project. Although a range of preliminary cost numbers are listed (SDEIS, p. 3-138), the SDEIS neither explains the time horizon upon which appropriate calculation of financial assurance would be based or the nature of equipment and operations that would be included in assessing costs. Financial assurance must be analyzed as part of environmental review, not just in permitting. This analysis would increase the likelihood that controls for adverse environmental impacts would be effective during mine operations and for hundreds of years after closure.	FIN05, FIN13
5337	SDEIS modeling of various contaminant sources over time indicates exceedances extending the entire modeling period – 200 years at the mine site and 500 years at the plant site. (See e.g. Water Modeling Data Package – Mine Site, SDEIS reference PolyMet 2013i, Figure pdf p. 1267). These same modeling assumptions are used to calculate and cap solute levels in earlier years. They must also be used to calculate the need for long-term wastewater treatment.	WR033, WR035
5338	Disclosure of financial assurance cost estimates is needed in the SDEIS both to characterize mitigation and to minimize public economic risk.	FIN05, FIN11
5339	The SDEIS notes that “PolyMet has developed preliminary cost estimate ranges” for hypothetical closure at years 1, 11 and 20 and that cost estimates “would be finalized by the MDNR during the permitting process.” (SDEIS, pp. 3-137, 3-138). Reviewing these SDEIS preliminary costs estimates for closure (SDEIS, p. 3-138), it is not possible to determine on what these estimates are based or to assess whether assurances at this level would be sufficient to protect long-term water quality. If the costs for treatment and mitigation are known, they should be disclosed to decision-makers and members of the public.	FIN05, FIN11
5340	Identifying the level and timing of costs for water treatment could provide specificity on the design for the PolyMet project that is lacking in the SDEIS. In addition, if certain costs are not included in the financial assurance estimate, their absence could indicate lack of a real plan for mitigation. For example, it would be useful to members of the public to know what has been budgeted for indirect wetlands mitigation.	FIN05, FIN11
5341	The SDEIS states, “The level of engineering design and planning required to calculate detailed financial assurance amounts is typically made available during the permitting process” (SDEIS, p. 2-10). If the level of engineering design and planning is, in fact, insufficient to calculate financial assurance, it is also insufficient to make the representations about water quality contained throughout the SDEIS.	FIN05
5342	Although the SDEIS includes an alternative in the size of the proposed land exchange, the SDEIS does not explore or evaluate a single alternative pertaining to the underlying open-pit sulfide mine project or the management or mitigation of potential contamination sources. The PolyMet SDEIS does not demonstrate that the proposed action is the least environmentally damaging practicable alternative. A revised SDEIS is needed to evaluate reasonable alternatives that minimize and mitigate impacts on wetlands and water resources.	ALT06, ALT20, ALT23
5343	An EIS that fails to evaluate reasonable alternatives is inadequate, and a Section 404 permit may not be issued for a proposal that is not the least environmentally damaging practicable alternative.	COE04
5344	The PolyMet SDEIS does not evaluate alternatives and does not propose the least environmentally damaging practical alternative to protect aquatic resources.	ALT20

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5345	The “alternatives” section of the PolyMet SDEIS is inadequate on its face. It constitutes less than 10 pages out of a massive 2,169-page document, most of which are used to assert that alternatives need not be investigated. The SDEIS explores no alternatives other than a “B” choice for the land exchange, which does not affect the underlying mine project, beneficiation or mine waste disposal plan and “would have the same effects” as the NorthMet Project Proposed Action.	ALT23
5346	Several reasonable alternatives have the potential to reduce impacts of the PolyMet Proposed Action on wetlands and water quality. The Underground Mining alternative and West Pit Backfill mitigation alternative were improperly eliminated from consideration. WaterLegacy proposes a Mine Site Year One Reverse Osmosis alternative that would be a less environmentally damaging practicable alternative to the PolyMet proposed action and identifies several mitigation alternatives for management of wastes and contaminant sources that must also be assessed. These alternatives should be evaluated and made available for public comment in a revised SDEIS before a Final EIS is prepared.	ALT20
5347	The PolyMet SDEIS improperly eliminated both the underground mining alternative and the West Pit Backfill alternative based on an unreasonably narrow definition of the objectives of the Proposed Action, a confusion of public and private purposes, and an insufficiently skeptical examination of statements and reports from the project’s main beneficiary.	ALT01, ALT03
5348	underground mining could be technically feasible and less environmentally damaging than the Proposed Action and that the “independent” analysis of its economic feasibility was based on an unreasonably narrow definition of the potential project and unrealistic project costs. This analysis is sufficiently unreliable that it cannot support rejection of the underground mining alternative.	ALT01, ALT06
5349	Neither the Revised Underground Mining Assessment, the Bornhorst Report nor the PolyMet SDEIS make any attempt to compare the economic feasibility of underground mining with projections of profit or loss for open-pit mining based on PolyMet’s actual costs for land exchange, construction, operations, treatment, reclamation, mitigation and financial assurance. There is, thus, no way for decision-makers or the public to determine whether underground mining, in fact, is less economically feasible than PolyMet’s actual open-pit mining proposal.	ALT01
5411	In order to determine if underground mining is the least environmentally damaging practicable alternative, underground and open-pit mining alternatives need to be compared and evaluated in a revised SDEIS -- identifying mineral resources likely to be extracted with each method of mining, projecting reasonable costs including costs for treatment, mitigation and financial assurance, and then comparing environmental and other benefits of both underground and open-pit mining alternatives.	ALT01, ALT06
5412	Elimination of the West Pit Backfill alternative was unreasonable...Elimination of the West Pit Backfill mitigation alternative without evaluation in theSDEIS appears to be based on PolyMet’s private interests and/or future mineral development.	ALT03
5413	Neither federal law nor the PolyMet Scoping Decision support elimination of an alternative from consideration to secure a better rate of return for a project applicant. Minnesota’s Environmental Policy Act prohibits the use of economic considerations to reject a feasible and practical alternative that minimizes or mitigates adverse effects on state natural resources. Minn. Stat. § 116D.04, subd. 6.	ALT21
5414	If the Co-Lead Agencies have, in fact, eliminated the West Pit Backfill from consideration as a mitigation alternative in order to allow future expansion of open-pit and/or underground mining, the underground mining alternative must be evaluated and the SDEIS must also include the potential mining expansion among its cumulative effects.	ALT03, ALT06
5415	If underground mining is not selected, an alternative that implements mine site reverse osmosis in year one may be the least environmentally damaging practicable alternative (LEDPA) to reduce indirect impacts of the proposed action on the Hundred Mile Swamp and Partridge River Headwaters wetlands and other aquatic resources near the PolyMet mine site. This alternative would allow mitigation of indirect impacts of mine dewatering and seepage from mine pits on high value wetlands and ecosystems on and near the mine site.	ALT20

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5416	Mine Site Year One Reverse Osmosis could minimize or mitigate hydrological and water quality impacts on high value mine site wetlands and headwaters. This alternative would:• Require on-site treatment of mine site stormwater and process water with reverse osmosis to meet surface water quality standards and prevent degradation of water quality starting in year one.• Employ hydrological testing to assess appropriate quantities and locations for water release to support wetlands and headwaters streams in the Partridge River watershed.• Release water treated by mine site reverse osmosis through pipe and/or spigot systems to mitigate the impacts of hydrological changes and mine dewatering on high value aquatic resources in the Hundred Mile Swamp and Partridge River Headwaters.• Treat East Pit water with mine site reverse osmosis starting when reclamation begins (at or about year 11) to limit acidity, oxidation and metals leaching from the East Pit and seeping to aquatic ecosystems through surficial and bedrock groundwater.	ALT20
5417	WaterLegacy suggests that the Mine Site Year One Reverse Osmosis alternative is available, technologically feasible and economically feasible. Potential environmental benefits include reduced impairment and destruction of Hundred Mile Swamp and Partridge River Headwaters wetlands and aquatic systems resulting from dewatering, hydrological changes, and seepage of pollutants from the East Pit through surficial and bedrock groundwater.	ALT20
5418	The Mine Site Year One Reverse Osmosis alternative should be explored and evaluated prior to any decision on the Section 404 wetlands permit, in order to meet the requirements of federal law to select the least environmentally damaging practicable alternative and prior to any state decision on the adequacy of the EIS, in order to comply with MEPA’s prohibition on state action that is likely to cause pollution, impairment or destruction of natural resources when there is a feasible and prudent alternative that may prevent or mitigate such adverse impacts.	ALT20
5419	Additional mitigation alternatives should be explored and evaluated to reduce the impacts of mine wastewater, tailings and mine waste rock management, leaks, seeps, discharges and spills. Risks and water quality impairments resulting from discharge of contaminants from mine site wastes, rail corridor spills, tailings seepage and hydrometallurgical residue leaks are described in preceding sections of these comments. The SDEIS must be revised to consider alternatives to mitigate these risks and impairments.	ALT06, ALT13
5420	The PolyMet SDEIS suggests that, starting in year 35, reject concentrate would be evaporated or disposed of off site. (SDEIS Figure 5.2.2-4, p. 5-163). But the SDEIS proposes no alternative management of reject concentrate prior to that time to minimize or mitigate the impacts of rail car spills, liner leakage or flooding at the West Equalization Basin in the event of extreme weather in excess of a 100-year storm.	ALT09
5421	In addition to considering the West Pit Backfill alternative, a revised SDEIS should evaluate the alternative of placing liners and a leachate collection system beneath the mine site Category 1 waste rock pile.	ALT07
5422	There is no information in the SDEIS as to the time that infiltration would reach the Partridge River under a P90 scenario and no analysis of the potential that contaminants would daylight to wetlands between the OSLA and the Partridge River. Although surface water runoff from the OSLA would be pumped and sent either to the tailing basin or the WWTF (SDEIS, pp. 5-101 to 5-102), the SDEIS neither proposes nor evaluates any liner or leachate collection system to reduce infiltration and seepage from the OSLA. (SDEIS, p. 5-97). The SDEIS also provides no assessment of the concentration of mercury in the OSLA surficial aquifer flowpath.	ALT07, ALT13
5423	[T]he PolyMet SDEIS contains no evaluation of any other location for the tailings, or any design that might use liners and seepage collection to minimize tailings basin impacts on water quality. The SDEIS must be revised to provide alternatives to the proposed deposition of tailings in unlined piles in Cells 1E and 2E on top of the existing unlined LTVSMC tailings basin.	ALT10
5424	The SDEIS neither considers alternative locations and management practices for the hydrometallurgical waste and sludge proposed for deposit in the HRF, nor considers the alternative of an off-site location in a facility designed to contain these wastes. Both alternatives should be discussed in a revised SDEIS.	ALT09

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5430	Some of the deficiencies in the PolyMet SDEIS cumulative impacts analysis magnify problems in the underlying analysis of the project's impacts on water quality... one of the consequences of errors and omissions in modeling sulfate and mercury and failing to model methylmercury was that the SDEIS denied that the cumulative effects assessment area (CEAA) for the project extends to the St. Louis River...this error in the scope of analysis must be rectified. Cumulative water quality impacts to the St. Louis River, including but not limited to mercury, methylmercury and sulfates must be analyzed. This deficiency alone is significant enough to require that a revised SDEIS be produced and made available for public comment.	MERC10
5433	Overall, inadequacies in the underlying water quality analysis prevent an accurate cumulative assessment of water quality impacts, including impacts of sulfates on wild rice, of methylmercury contamination of fish and of the PolyMet project on environmental justice and tribal resources.	CU11
5435	WaterLegacy also believes that the scope of projects considered in the SDEIS cumulative impacts analysis is inappropriately narrow. The SDEIS fails to consider impacts from other reasonably foreseeable mine projects. Most important, as reflected in PolyMet's technical reports and commissioned reports for investors, it is reasonably foreseeable that, if permitted, PolyMet's mine and processing facilities would expand. The PolyMet SDEIS must analyze the potential impacts of expanded mining and processing on the PolyMet site, even if only to state that such expansion could not be accommodated without substantial and unacceptable impacts on the environment.	CU02
5437	Apart from the violation of numeric standards, the SDEIS reflects the potential for cumulative impacts on aquatic life, especially in impaired waters. These adverse cumulative effects would result from the degradation of water quality, the presence of ionic stressors, changes in hydrology, and the shift of the hydrologic regime in the Partridge River and Embarrass River from a natural ecosystem to a mechanical system, as a result of the PolyMet project and past, present and future mining activities. These cumulative impacts are summarized in Section VII of these comments.	AQ24, AQ27
5438	Cumulative impacts of the PolyMet and other mining projects on lynx are even more significant. The PolyMet project, along with other past, present and reasonably foreseeable mining activities, would result in an almost complete disruption of historic wildlife movement from the northwestern to the southeastern sections of the Arrowhead region.	WI01, WI03
5439	Even though impacts on wildlife of the PolyMet project, if considered alone, may not reduce lynx population or sustainability, the cumulative impacts of the PolyMet action and other mines and roads across and near the Iron Range would result in a significant adverse effect on population stability and persistence of the lynx. The SDEIS should clearly identify cumulative impacts of the PolyMet project on the Canada lynx as a significant adverse effect on a federally listed species under the ESA.	WI01
5440	The PolyMet SDEIS' analysis of wetlands impacts fails to consider wetland functions. It is purely a numerical calculation based on the assessment that, since the time of settlement, the loss of wetland acreage from every past, present and reasonably foreseeable land use other than the PolyMet project totals 2,557 acres in the Partridge River watershed and 402 acres in the Embarrass River watershed.	WET18
5441	The SDEIS provides no cumulative analysis of impacts on wetlands functions or values...the SDEIS must be revised to include a cumulative analysis of the effects of PolyMet proposed action on wetlands values.	WET18
5473	The SDEIS' assessments of cumulative impacts on mercury, methylmercury, sulfates and other water quality contaminants is inadequate...The PolyMet SDEIS' assessment of mercury and methylmercury impacts is inadequate. The cumulative effects assessment area (CEAA) for mercury and methylmercury must include the St. Louis River. Both project area and cumulative analyses of mercury and methylmercury in the SDEIS must be redone.	MERC10

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5525	Analysis of the cumulative impacts of the PolyMet requires evaluation of all of the past, present and reasonably foreseeable impacts on mercury and mercury methylation in the St. Louis River, including all direct discharges of mercury throughout the watershed, all mining and other industrial projects that contribute sulfates to the watershed, and all ditching activities that affect wetlands in the watershed. A mercury total maximum daily load (TMDL) study is required to determine the factors contributing to these findings of mercury in fish.	MERC10, MERC22
5527	The SDEIS failed to identify potential cumulative effects of the PolyMet project on shallow and bedrock groundwater...failure to identify cumulative effects on groundwater results from unsubstantiated and unreasonable assumptions regarding faults, fractures and other secondary porosity features in mine site and plant site bedrock and regarding the lack of hydrologic connection between shallow and bedrock groundwater. Once these deficits in evaluating project area geology and hydrogeology are rectified, a cumulative assessment must be provided to include past, present and reasonably foreseeable impacts of other mine projects near the project area, particularly Cliffs Erie and Northshore mining activities.	CU02
5528	Cumulative sulfate loading would also affect wild rice waters further downstream in the St. Louis River. A revised SDEIS must consider the cumulative impacts of sulfate loading to the St. Louis River, including impacts to wild rice and mercury methylation along the full length of the River through the estuary.	MERC10
5529	The PolyMet SDEIS provides little analysis of the cumulative impacts of the PolyMet project on environmental justice. This is an important concern for WaterLegacy and members we serve who are low-income persons reliant on fishing, hunting and gathering wild rice for subsistence. A federal executive order and federal policy guidance requires that this deficiency in the SDEIS be remedied	SO04
5530	The SDEIS environmental justice analysis is inadequate. A revised SDEIS must evaluate cumulative harm to low-income, minority and tribal subsistence consumers resulting from reduced productivity of waters for fish and wild rice downstream of the PolyMet project.	SO04
5531	...the SDEIS must evaluate disproportionate multiple and cumulative exposures to chemicals that pose a hazard to human health, such as arsenic and methylmercury, as a result of consuming wild rice and fish.	HU01
5533	The PolyMet SDEIS provides an incomplete analysis of cumulative effects of the project on tribal rights and resources. The SDEIS provides a narrative description of cultural and historic resources and concludes, "The NorthMet Project Proposed Action would result in both direct and indirect effects on historic properties and culturally important resources."	CR03
5534	Going beyond the analysis of historic properties, however, the SDEIS has significant gaps. The SDEIS discusses cumulative effects on usufructuary rights, but focuses that analysis only on the PolyMet project area, (SDEIS, p. 6-90) rather than considering cumulative impacts of mining activities throughout the 1854 Ceded Territories. The SDEIS states that cumulative effects analysis should focus on plant and animal species that are traditionally or culturally important to the Bands (SDEIS, p. 6-95), but does not analyze impacts on wild rice, fish or moose. Without considering any impacts to these key resources, the SDEIS concludes that neither the PolyMet project nor the cumulative impacts of other past, present and potential future project are likely to reduce the "availability of 1854 Treaty resources that are typically part of subsistence activities in the 1854 Ceded Territory." (SDEIS, p. 6-95) This conclusion is unsubstantiated.	CR01, CR03
5535	WaterLegacy believes that the SDEIS must provide a more rigorous analysis of cumulative impacts of the PolyMet project on tribal resources. In addition, any consideration of a land exchange or permits for the PolyMet project as well as any NEPA review of the adequacy of the SDEIS must reflect federal fiduciary obligations to protect these resources. Our members view protection of tribal resources as a concern for all citizens and taxpayers represented by the government of the United States in signing treaties with Indian tribes.	CR01, CR03

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5536	Federal responsibilities to protect treaty-covered resources require a comprehensive analysis of cumulative impacts of the PolyMet project and past, present and reasonably foreseeable future activities on fish, wild rice and game, particularly moose. Federal obligations to protect trust resources in the 1854 Ceded Territories, along with the evidence of significant adverse environmental impacts on water quality, wetlands, mercury contamination of fish, aquatic life and human health described in these comments, also supports denial of a Section 404 wetlands permit and land exchange for the PolyMet project.	CR01, CR03
5537	The SDEIS excludes as “speculative” the Cliff Erie UTAC expansion, even though this expansion is already permitted under Section 404 permit 81-172-13, is now undergoing a further permit review process,104 and the highway relocation for its expansion is already underway in the DEIS process. (SDEIS, p. 6-14). The UTAC would impact another 1,300 acres of wetlands. The SDEIS, however, considers the cumulative impacts of a Mesabi Nugget project despite the fact that it is “currently on indefinite hold by the applicant.” (SDEIS, p. 6-11).	CU02
5539	The SDEIS declines to include the Twin Metals copper-nickel mining project in its cumulative impacts analysis, despite the strong likelihood that this project will proceed if it is environmentally permissible. The recently released Twin Metals prefeasibility study locates the tailings storage facility and buffer just west of the Northshore Peter Mitchell Pit, increasing the likelihood that impacts from Twin Metals would cumulatively affect water quality within the Embarrass River watershed.105	CU02
5540	Yet more critical, a revised SDEIS must consider the cumulative impacts of reasonably foreseeable expansions of mining at the PolyMet mine site and processing at the PolyMet plant site. A proponent of mineral development may not choose an arbitrary limit on what is economically recoverable, but must base an EIS on the full range of likely production.	CU04
5542	On page ES--- 42, the claim is made that alternatives were identified and screened in accordance with the requirements of 40 CFR 1505.1(e). This is an erroneous citation. The reference to 40 CFR 1505.1(e) refers to NEPA and agency decisionmaking procedures, not the preparation of an EIS. The correct citation is 40 CFR 1502.14, which states, “Alternatives including the proposed action. This section is the heart of the environmental impact statement. Based in the information and analysis presented in the sections on the Affected Environment (1502.15) and Environmental Consequences (1502.16), it should present the environmental impacts of the proposed action and the alternatives in comparison form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.”	EDIT01
5543	The result of the screening of alternatives in Sect. 3.2.3 was either to eliminate an alternative or incorporate an alternative into the proposed action. As a result, there is no other alternative to the proposed action other than the alternative of no action. This is specious reasoning that is not responsive to the purpose of an environmental impact statement or the requirements of 40 CFR 1502.2(g). The SDEIS preparers have assumed the responsibility of the decisionmaker for each of the Federal agencies responsible for this SDEIS and have made the decision for the decisionmaker prior to receiving public input. This is a clear violation of NEPA and the requirements of 40 CFR 1502.2(g).	ALT06
5555	40 CFR 1502.7 specifies the page limits for an EIS should be less than 300 pages. 40 CFR 1502.2(a) states “Environmental impact statements should be analytic and not encyclopedic.” 40 CFR 1502.2(c) says that “Environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and with these regulations.” The SDEIS is in excess of these page limits, is not concise, and is more encyclopedic than analytic. Redundant information that is often contradictory or irrelevant is included in every section. The history of the SDEIS presented in Sect. 2 is encyclopedic and should be an appendix at best. Sect. 2 does not contribute to the SDEIS or to understanding the information presented in the SDEIS.	NEPA08
5556	The description of the proposed action is conceptual and not quantitative. While the process description in Sect. 3 is largely complete, the fluxes within the process are incomplete or missing. For example, on page 3---163, the makeup water is described as being between 20 – 810 gpm. At the least, this sort of description is confusing and leads to the conclusion the design is incomplete.	PD30

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5557	The Category 1 waste rock pile is proposed to have a cutoff wall and a drainage collection system around the entire perimeter of the pile. The water collected by the system is to be sent to the WWTF. The collection efficiency of the collection system is alleged to be greater than 90% (pg. 3---46). This is simply an assumption not justified or supported by analysis or data. Such a drainage system would require routine maintenance to prevent clogging from fines or mineralization. This is not noted in Sect. 3 and is not considered in Sect. 5.	PD16
5558	[T]he performance period for treatment at the mine site is modeled as 200 years and the performance period for the plant site as 500 years. These periods are again simply assumptions that are not justified. There is no evidence that the engineered systems proposed can reasonably be expected to perform as built for 500 years. There is no discussion or analysis to support the long---term performance of the WWTP. There is no analysis of accidents or failures over these extended performance periods.	PD03
5559	[T]he performance period for treatment at the mine site is modeled as 200 years and the performance period for the plant site as 500 years. These periods are again simply assumptions that are not justified...There is no consideration of alternatives that would not require these extended performance periods. To accept these extended performance periods without the consideration of alternatives is contrary to the requirements of 40 CFR 1500 – 1508 and renders the SDEIS unacceptable.	ALT13, NEPA14, PD03
5560	Fig. 5.2.2---6 does not incorporate the historical creeks that are present beneath the existing tailings pile.	WR081, WR092, WR096, WR104
5561	Fig. 5.2.2---18 presents a GoldSim result that has a maximum concentration of sulfate at 2500 mg/L, which precipitously drops to approximately 250 mg/L by year 35. The SDEIS does not explain the constant sulfate concentrations for 20 years, the order of magnitude reduction in the sulfate concentration over 15 years, or the constant sulfate concentration for the next 165 years.	WR086, WR173
5562	Table 5.2.2---22 lists potential contaminant sources, but either does not consider any releases from the west equalization basins at the WWTF, or allows for arbitrarily low leakage rates. Assuming no releases or minimal releases from the WWTF is an implicit assumption that is not justified.	WR126
5563	On Pg. 5---121 the capture of seepage from the south side of the tailings pile and the flow augmentation of Second Creek is described. For this description to be valid the existing pumping system for capturing seepage to Second Creek would have to be assumed to operate perfectly. The WWTP would have to operate without accidental disruption for hundreds of years, the pumping system would also have to work without failure for hundreds of years, the addition of approximately 100 ft. of saturated tailings to the tailings pile could not significantly increase the leakage from the tailings pile, and the natural drainage of Second Creek which originates under the tailings pile could not discharge beneath or around the collection system. This set of implicit assumptions have not been disclosed or justified in the analysis.	WR117
5564	Table 5.2.2---29 suggests that background groundwater, non---contact stormwater and the Northshore Mine operations contribute to the sulfate loading in the Partridge River at SW---004a. The table also suggests that no PolyMet sources contribute to the sulfate loading except a 4.3% increase resulting from water treated at the WWTF in closure year 200. To reach this conclusion, implicit assumptions that are not conservative must have been built into the GoldSim model. These implicit assumptions need to be identified since they are the likely basis for this improbable set of results.	WR049, WR177, WR189
5565	Fig. 5.2.2-27 is physically unrealistic. For this result to have any basis in reality, a continuous, constant source term would have to be associated with the model. Except for a natural source, such a source term does not exist, and will not exist as a result of this project.	WR033, WR044

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5566	Table 5.2.2-36 is yet another example of the use of implicit assumptions to provide a result which is misleading. The notion that the addition of 100 ft. of saturated tailings to the tailings pile will not affect groundwater seepage is physically unrealistic. The notion of partial containment structures around the tailings pile collecting nearly all of the drainage from the tailings pile that has no liner is also unrealistic. These results are simply misleading.	WR018, WR105
5567	In my opinion the SDEIS has developed insufficient site-specific data to adequately inform an evaluation of the projected or actual impacts of the Northmet Mining Project on mercury methylation in the adjacent watersheds. My opinion to this effect is based on: the lack of data on background methylmercury in the SDEIS (4.1.1); inconsistencies in minimum detection limits for total mercury in data presented in the SDEIS (4.1.2), and; failure to conform to standard approaches with respect the manner with which Hg data is calculated, interpreted and then subsequently presented (4.1.3).	MERC07
5568	The SDEIS fails to make reference to methylmercury (the Hg species of concern) in the Predicted Environmental Consequences Of The Proposed Connected Actions section of the Executive Summary (ES-34-37) and this oversight is carried throughout most of the the document when actual data are being presented and discussed. SDEIS Section 4.2.2.1.4 Mercury (4-37) provides an overview of Hg in the Embarrass and Partridge Rivers, where, in addition to total Mercury, it states that “Methylmercury concentrations in the Partridge River at SW-005 average 0.4 ng/L and in the Embarrass River average 0.5 ng/L at PM-12 and 0.4 ng/L at PM-13 over the same period.” This is the only reference to methylmercury in natural surface waters that I noted, and Table 4.2.2-4 (4- 41) that is referred to in this section does not present MeHg data (only THg).	MERC07
5569	Moreover, the SDEIS does not provide any THg or MeHg for sediments in lakes, rivers and streams, or wetlands, despite the importance of the solid phase in supplying both species to downstream waters either through in situ methylation or solid-liquid phase partitioning.	MERC04, MERC20
5570	Other THg data presented have similar inconsistencies, including: Table 4.2.2-6 (Summary of Existing Groundwater Quality Monitoring Data for the NorthMet Mine Site). Apparent MDL for Hg 0.25 ng/L.	MERC07
5571	Other THg data presented have similar inconsistencies, including: Table 4.2.2-13 (Baseline Water Quality from the South Branch of the Partridge River). Apparent MDL of 500 ng/L where data are being reported from the 1970s – reliable trace mercury data in water were not reported until the mid-1980s so this data has no utility, and the absence of any more recent data is questionable.	MERC07
5572	Other THg data presented have similar inconsistencies, including: Table 4.2.2-14 (Average Existing Water Quality Concentrations in the Partridge River). Apparent THg MDL of 0.0025 ng/L is analytically impossible using current technologies. I suspect that this is an error in reporting and highly problematic given that this is taken from the range of THg concentrations reported, which must also be in error.	MERC07
5573	Other THg data presented have similar inconsistencies, including: Table 4.2.2-15 (Mean Water Quality Data for Longnose Creek, Wetlegs Creek, Wyman Creek, and West Pit Outlet Creek). Apparent THg MDL of 0.25 ng/L.	MERC07
5574	Other THg data presented have similar inconsistencies, including: Table 4.2.2-23 (Existing Pond Water and Groundwater Quality at the Tailings Basin). Apparent THg MDL of 0.25 ng/L. Methylmercury also reported here with apparent MDL of 0.03 ng/L.	MERC07
5575	Other THg data presented have similar inconsistencies, including: Table 4.2.2-24 (Summary of Existing Groundwater Quality Monitoring DataDowngradient from the Existing LTVSMC Tailings Basin). Apparent THg MDL of 0.25 ng/L. Methylmercury also reported here with apparent MDL of 0.05 ng/L.	MERC07
5576	Other THg data presented have similar inconsistencies, including: Table 4.2.2-34 (Summary of Surface Water Quality Monitoring Data for the Tailings Basin Surface Seeps). Apparent THg MDLs range from 0.25 to 2 ng/L depending on sampling location. MeHg reported for one location with all samples detected (lowest is 0.15 ng/L) so no estimate of MDL is possible.	MERC07

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<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5577	Other THg data presented have similar inconsistencies, including: Table 4.2.2-6 (Summary of Existing Groundwater Quality Monitoring Data for the NorthMet Mine Site). Mercury data is presented under the “Total metals” part of the table as opposed to the “filtered” section. Unfiltered groundwater samples are unrepresentative of the mobile phase and should be discounted.	MERC07
5578	The SDEIS does not use currently accepted methods for interpreting non-detect samples in the background data presented. In all data tables where non-detect samples are reported, the tables are footnoted with the following statement: Where non-detects occur, the mean was calculated using half the detection limit. The contemporary state of the science does not accept this simplistic handling of nondetect samples.	MERC05
5579	All of the concerns expressed associated with this Opinion call into question the assessments of relative impact of the proposed project on mercury presented within the SDEIS. For example, the NorthMet Project Proposed Action is predicted to increase mercury loadings in the Embarrass River, but decrease mercury loadings in the Partridge River. The net effect of these changes would be an overall reduction in mercury loadings to the downstream St. Louis River. (5-8; 5-210). These assertions may be inaccurate and/or incorrect if the background Hg concentration data were re-evaluated in a more technically appropriate manner.	MERC04
5580	The SDEIS oversimplifies or fails to address other factors that affect Hg fate and transport in its assessment of potential impacts of the proposed Project on downstream water quality. For example: “All samples [from monitoring locations at or near the tailings basin] were well below average concentrations in precipitation (approximately 9.8 ng/L).” (SDEIS 5-21) This statement implies that precipitation-derived Hg is a larger and more important source than runoff from tailings, but is misleading since a) the data is from a 2003 source which cannot account for a trend in decreasing Hg in precipitation in Minnesota; b) fails to recognize that precipitation-derived Hg is primarily delivered to the watershed, and is not a significant direct input to surface waters; c) 75-80% of Hg loading to most aquatic ecosystems is from runoff (Harris et al., 2007) with small seepage lakes and the Laurentian Great Lakes being exceptions.	MERC04, MERC20
5581	5.2.2.3.4 Mercury (SDEIS 5-201). “Current scientific understanding of the factors and mechanisms affecting mercury methylation and bioaccumulation is limited.” Based on the burden of evidence in the scientific literature, this is an inaccurate statement. A thorough discussion of the response of fish tissue Hg concentrations to changes in Hg loading is easily found in Munthe et al. (2007), where a multitude of factors, based on a significant body of other literature, are described in governing the response of fish tissue Hg in response to changes in Hg loading.	MERC02
5582	(SDEIS 5-207, 5-208)...clearly identifies increased sulfate loading as implicated in enhancing Hg methylation, yet by its wording, suggests that the scientific literature is conflicted in its findings. Upon close reading of the cited material, it is clear that there is no disagreement in the scientific literature on this issue. Jeremiason et al. (2006) found that increased sulfate loading to a peatland in north-central Minnesota increases mercury methylation and export. The SDEIS fails to go further and state that these authors also found that sulfate concentrations in the peat and waters quickly decreased to below detection level after sulfate addition because of the process of sulfate reduction (and mercury methylation). This is precisely the conclusion of Branfireun and Roulet (2002) (sulfate concentrations decrease as methylmercury concentrations increase), yet the citations are presented as conflicting results in the SDEIS with the inclusion of the word, “However”. The scientific literature, including those cited in the SDEIS, is unequivocal on this issue: increased sulfate loading to freshwater systems increases MeHg production.	MERC08
5583	5.2.2.3.4 Mercury (SDEIS 5-201). “Mercury was not included in the GoldSim model, as insufficient data and a general lack of definitive understanding of mercury dynamics prevented modeling mercury like the other solutes.” This is an inaccurate and misleading statement, and implies that Hg does not conform to basic chemical laws, and is unmodellable given current knowledge. A more accurate statement would be that, “The model that was employed as part of this assessment does not include Hg dynamics. This is a deficiency of the model.”	MERC13

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5584	The SDEIS does not make the connection between the dominant wetland type and landcover class (bog wetland, ombrotrophic or otherwise) in the area of impact around the proposed project and methylmercury production in the landscape. This is a critical oversight because of the potential impacts on hydrology and atmospheric deposition as a result of the proposed project (see 6.5 Opinion 5). The literature, including some of that cited in the SDEIS, draws a clear connection between bog-type peatlands and methylmercury production and export, with some of the most relevant work done in the state of Minnesota.	MERC20, WET13
5585	The SDEIS indicates in numerous locations that, “Most of the wetland vegetation present at the Mine Site (69 percent) is indicative of acid peatland systems (i.e., open and coniferous bogs) that are dependent on precipitation rather than groundwater for hydrologic inputs and reflect a perched water table.” (SDEIS 4-150). The focus on the lack of groundwater inputs to bogs downplays the role that the internal biogeochemistry of bogs has on downstream water quality. Peatlands, in particular bogs, are among the most potent Hg methylating environments in the temperate/boreal landscape. Grigal et al. (2000) highlighted the importance of peatlands in the overall mercury budget in north-central Minnesota.	MERC20, WET09
5586	the SDEIS presents the shallow groundwater hydrogeology, bog hydrology, and the nature of connectivity between these landscape components in a purely conceptual fashion, or with limited data from an unproven analog system. In doing so, hydrological impacts of the proposed development on surrounding wetlands and subsequent changes in methylmercury production and release are not adequately evaluated.	MERC09
5587	The SDEIS is entirely deficient in documenting the effect of depressurization of the underlying aquifer due to open pit dewatering. There is no geophysical data concerning the extent and thickness of the surficial aquifers. There is no modelling presented that simulates the development of the cone of depression associated with pit development over time. The reliance on the analog case to evaluate the potential extent and magnitude of the cone of depression and dewatering impact of surface wetlands and streams is completely unsatisfactory, in my opinion, given the availability of robust hydrogeological models that could reasonably evaluate potential impact scenarios.	WR086, WR087, WR119
5588	[T]he classification of degree of potential wetland impacts due to the proposed project in Table 5.2.3-3 is unsubstantiated, not based on sufficient empirical evidence, not based on the best available science, and may in fact be opposite to the real outcomes. This conclusion undermines the efficacy of the proposed wetland impact monitoring strategy outlined in the SDEIS, which would be “based on those wetlands that would have a high likelihood of indirect effects as a result of groundwater drawdown.” (p. 5-310).	WET10
5589	The potential for the discharges of mercury and sulfur from the tailings stockpiles/ponds are inadequately addressed in the SDEIS, and the potential for both direct and indirect downstream water quality impairments are understated.	MERC01
5590	The SDEIS relies on several insufficiently substantiated assumptions regarding collection of seepage from both the mine site and tailings basin to assert that surficial groundwater won’t be impacted by release of sulfates to methylating environments. In my opinion, the data presented in the SDEIS is insufficient to discount the potential for seepage of sulfates and associated impacts to wetlands in the vicinity of both the project mine site and tailings basin. Such seepage would enhance MeHg production in the project area and could also contribute directly to water quality impairments in sulfate-poor sediments downstream of the project site.	WR017, WR018, WR149
5591	it is my opinion that the potential for cumulative downstream impacts both from mercury and mercury methylation at the project site are understated in the SDEIS. Based on the literature (much of which is from Minnesota) and my experience in other wetland ecosystems, it is my opinion that discharges of sulfate and total mercury and hydrologic changes to peatlands at the project site have the potential to significantly increase methylmercury in downstream wetlands and surface waters...There is also no reason to assume that effects on mercury and methylmercury would be limited to the smaller streams, or the main channels in the Partridge or Embarrass River watersheds. Both direct and indirect water quality impairments would have the potential to affect the St. Louis River.	MERC08, MERC10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5592	Reviewed as a whole, the PolyMet NorthMet Supplementary Draft Environmental Impact Statement (SDEIS) fails to adequately address major ions and trace elements. The document ignores aquatic toxicity and possible synergistic impacts from waste rock leachates. The SDEIS fails to evaluate parameters in a scientifically defensible manner.	WR064, WR071, WR110, WR141, WR177
5593	Mine Site water quality assessment is based on improper assumptions about rock characterization and chemistry. Category 1 waste rock pile will create acidic pore water and leach high volumes of sulfates and toxic metals.1. The SDEIS improperly uses small sample size and averaging to design waste rock humidity cell tests.	PD15, WR025
5594	The SDEIS humidity cell testing lacks the rigor necessary to predict sulfur content of the waste rock stockpiles.	WR034
5595	The SRK RS53/RS42 document describes the humidity cell process, stating 89 samples were used to categorize waste rock, a total of 309 million tons of waste rock (NorthMet Project Waste Characterization Data Package V. 9, March 7, 2013, SDEIS reference PolyMet 2013l, section 4.3). This sample size is scientifically inadequate for characterization of such a massive pile of waste rock.	WR025
5596	Sorting waste rock stockpiles will not be possible to the degree presumed in theSDEIS. The SDEIS proposes to use block modeling to separate heterogeneous waste rock into four classes based on the sulfur concentrations in block modeling (SDEIS, p. 3-44). This modeling cannot be consistently duplicated in the physical action of loading trucks from the windrowed blast rock.	PD15
5597	The SDEIS states its plan to use Category 1 waste rock for construction material (SDEIS, Table 3.2-8). However, this material should be considered reactive waste (SDEIS PolyMet 2013l, p. 2). It has a high potential for leaching beyond surface water standards and should not be used as construction material.	PD15
5598	The use of a block model intended to predict the amount of profitable resource to determine concentrations of other parameters does not accurately predict potentially toxic waste rock leachates. This error will compound the inaccuracies resulting from the averaging of the sulfate mineralogy from the humidity testing.	WR025
5599	The SDEIS fails to adequately evaluate chlorides. Chlorides will be much higher than predicted, impacting wastewater treatment performance and surface and groundwater quality.	WR002, WR025, WR147
5600	The SDEIS incorrectly assumes the occurrence and concentrations of chlorides are few in number and only in fractures containing water.	WR010, WR025
5601	The SDEIS incorrectly assumes chlorides are mostly found in fractures exceeding PolyMet’s mine pit depth.	WR010, WR025
5602	PolyMet assumes but does not substantiate that chlorides are localized to Amax. Such an assumption is not consistent with scientific evidence.	WR087
5603	The SDEIS incorrectly assumes chlorides are found only on the rock surface and in inundated fracture zones.The SDEIS (SDEIS, pp. 5-113, 114) incorrectly assumes that brackish water is contained only in fractured rock, rather than in inclusions within the rock. Because the SDEIS contends both that brackish water is only in fractures and that fractures at the mine site are insignificant; the SDEIS then assumes that the brackish water will not be a continuing source of pollutant. These assumptions are inaccurate.	WR010, WR025, WR078

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
5604	The SDEIS fails to accurately evaluate the impacts of high levels of chlorides on the inundated meromictic east, central, and west pits water at closure (Novotny, 2007). Meromictic impacts from chlorides to ground and potentially surface water and wetlands must be addressed. The SDEIS fails to address impacts of high chloride that is not captured from the seepage and liner leaks; potential impacts on surface water, groundwater and wetlands quality must be addressed. The SDEIS fails to discuss how chlorides may affect reject concentrate and sludge chemistry, potentially impacting waste storage. The SDEIS fails to discuss how any passive treatment systems proposed for closure would control chlorides.	WR002, WR025, WR137, WR147
5605	The discussion in the SDEIS relating to more recent faults and fractures does not take into consideration the significant and relatively recent large-amplitude crustal movements associated with glacial isostatic rebound and their fracture-generating and aperture-expanding potential.	WR012
5606	The SDEIS must recognize the fact that numerous faults and other fractures, including some that have recently formed, are documented at both the Mine Site and the Tailings Basin Site. The SDEIS must adjust the modeling of groundwater and contaminant flow accordingly.	WR012
5607	[A]pplying such low hydraulic conductivity values to the bedrock at the Mine Site as a whole does not accurately reflect field conditions described in other places in the SDEIS as well as in the scientific literature. Considering groundwater flow through fractured bedrock would result in travel times possibly orders of magnitude lower than assumed in the SDEIS. Again, this is major inadequacy of the SDEIS' treatment of hydrogeology.	WR010, WR011, WR012, WR071, WR087, WR090, WR099, WR168, WR169, WR179
5608	the SDEIS analysis of water quality impacts seems to rely heavily upon old references from studies conducted at locations other than NorthMet while at the same time ignoring more recent high-quality geologic studies from the NorthMet project area itself carried out by the Minnesota Geological Survey (Jirsa et al, 2011; Severson and Miller, 1999; Miller and Severson, 2005a; 2005b; 2005c; and 2005d for example) and by PolyMet and its consultants (PolyMet, 2007b and PolyMet, 2013i for example).	WR009, WR023, WR071, WR072
5609	The subject of contaminant transport from the Tailings Basin seems not to take into account surface drainage conditions and the resulting near-surface groundwater flow conditions that existed prior to the construction of the LTVSMC tailings basin.	WR053, WR071, WR081, WR091, WR096, WR104, WR130
5610	The SDEIS also does not acknowledge existing seepage along the east side of the Tailings Basin (Seep 31 shown on Figure 6 in Barr, 2007g) nor discuss how the historic streams flowing from Spring Mine Lake may affect groundwater flow to the east from beneath the Tailings Basin.	WR071, WR081, WR102
5611	The potential for seepage from the Tailings Basin towards the east due to these current and forecast conditions and the potential need for a seepage collection system on the east side of the Tailings Basin seems to have been overlooked in the SDEIS.	WR071, WR081, WR102
5612	The level of detail presented in sections describing the surficial geology of the Tailings Basin area is minimal, not well referenced and is not based on site-specific geologic studies. The following statement made by Barr Engineering sums up their contribution to the understanding of the surficial geology of the Tailings Basin Area in support of the SDEIS. "Site specific geologic studies of the glacial deposits have not been conducted" (Barr 2009f). For this reason, the SDEIS must rely upon the published literature and anecdote to characterize Tailings Basin surficial geology.	WR023, WR058, WR071, WR072, WR096, WR098, WR104, WR105
5613	Many sections of the SDEIS dealing with geology have serious omissions where scientific data should have been provided. The scientific credibility of the SDEIS is further compromised by numerous instances where cited references are misquoted and other areas where important assumptions made about geology and hydrogeology are unsupported.	WR071
9361	The PolyMet SDEIS provides an inadequate and, often, misleading assessment of mercury discharges and emissions, sulfur deposition, and sulfate seepage to shallow groundwater.	MERC08, WR156

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
9362	The PolyMet SDEIS analyzes neither the impacts of pollutant discharges nor of hydrologic changes on the formation and bioaccumulation of methylmercury.	MERC08
9383	The SDEIS demonstrates that use of Colby Lake water for flow augmentation would violate Minnesota's 1.3 ng/L Great Lakes mercury standard and the Clean Water Act. Five out of five Colby Lake samples exceeded Minnesota's mercury standard, with a range of concentrations from 4.8 ng/L to 6.0 ng/L and a mean of 5.4 ng/L. (SDEIS, Table 4.2.2-4, p. 4-41).	WR184
9391	Although the PolyMet SDEIS refers several times to the 92 percent [mercury] burial assumption (see SDEIS, pp. 5-202, 5-203, 5-204) at no point does the SDEIS cite any literature or data substantiating this assumption.	MERC04
9413	Although the SDEIS suggests that mercury in mine pit lakes generally remains below the 1.3 ng/L standard, average mercury concentrations in 2 of the 16 listed mine pits exceed the standard. (SDEIS, p. 5-202). In addition, mercury concentrations in 5 of the pits ranged above the 1.3 ng/L standard. (Water Modeling Data Package – Mine Site, SDEIS reference PolyMet 2013i, pp. 308-309). Neither the pits nor the data used can be readily identified.	WR201
9431	The NTS 2006 bench study referenced in the PolyMet SDEIS (SDEIS, p. 5-206) does not support claims for 95 percent adsorption of mercury to NorthMet tailings.	MERC04
9448	modeling of methylmercury impacts of the PolyMet project would have been possible using available models and concepts well understood in the scientific literature.	MERC11, MERC13
9902	the SDEIS gives only a cursory and simplistic treatment to the role bedrock fractures play in the transmission of groundwater at the NorthMet Mine Site and at the Tailings Basin... (page 4-45). In many places within the SDEIS important statements made relating to bedrock fracturing are either unreferenced, inaccurately referenced or otherwise unsupported by data tables, figures or maps. Perhaps of greater concern are the numerous instances within the SDEIS where statements made related to the hydrologic significance of bedrock fractures blatantly misrepresent what the cited author(s) stated.	WR126
9903	[Figure 3.2-28] portrays the bedrock that occurs beneath the Tailings Basin as an "assumed no-flow boundary". The implications of this are that groundwater flow through bedrock at the Tailings Basin is so insignificant that it can be conceptually ignored. If this assumption were accepted achieving the collection of 90 percent or more of contaminated groundwater would sound reasonable; however this rather critical hydrogeologic assumption is not supported by either data or cited references within the SDEIS.	PD08, WR010, WR011, WR061
9905	Recent geologic mapping by the Minnesota Geological Survey shows a fault beneath the existing Tailings Basin and proposed Hydrometallurgical Residue Facility ("HRF") (Figure 1 [of Lehr_PolyMetSDEISReview]). Numerous other faults are mapped in close proximity (Jirsa et al, 2005; Jirsa et al, 2011; Jirsa et al, 2012). The hydrologic significance of these faults is unknown at this time because the SDEIS did not address them.	WR012
9910	Numerous recently-developed tools and technologies are commonly used in combination with more traditional mapping methods to successfully evaluate the hydrologic properties of bedrock fractures [including LiDAR topography datasets, traditional drill core logging, borehole geophysical techniques]... Apparently none of these techniques were employed in the SDEIS process to identify fractures or assess groundwater flow through fractured bedrock. This seems like a major omission, resulting in unsupported assumptions and inadequate information regarding groundwater flow at both the Mine Site and Tailings Basin.	WR007, WR008, WR011, WR012, WR014, WR019, WR056, WR061, WR072, WR087, WR097, WR098, WR168, WR169, WR170

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
9911	Neither Farvolden et al (1988), Douglas et al (2000) or Rouleau et al (2003) make statements that support the SDEIS' assertion [on page 4-45] that the degree of faulting and fracturing of rocks is in any way related to the age of the rocks. On the contrary, one pertinent remark made by Farvolden et al (1988) is that "mineral deposits on the Canadian Shield are commonly associated with geologic anomalies, in particular contact zones, faults or fracture zones"...	WR023, WR061, WR071
9913	the SDEIS downplays the hydrologic significance of bedrock fractures and does not seem to include groundwater flow through fractures in its seepage calculations.	WR012
9914	[SDEIS, p. 4-45] there are no Foose and Cooper references listed in the SDEIS from either 1979 or 1980, so it is assumed the references and conclusions in this paragraph are from Foose and Cooper 1978 and 1981 which are cited in the list of references.	EDIT01
9916	these statements [on pg 4-45] made relating to bedrock fractures are not supported by the references cited in the SDEIS. Neither of the two Foose and Cooper papers report that "the most extensive faults are largely filled with gouge." Their only mention of fault gouge in these two papers is that they used its presence to trace fault zones in the field. Neither paper discusses distance groundwater may flow through faults and fractures in the Duluth Complex - in fact neither mention groundwater flow at all.	EDIT01
9917	The sections of the SDEIS describing bedrock fractures rely mostly on references that are quite old while failing to reference vast amounts of more recent geologic data and scientific literature directly relevant to assess hydrologic role of bedrock fractures at NorthMet... The NorthMet deposit mine plan and other critical documents and datasets... have been reviewed by what are essentially external auditors... who prepared the 43-101 Technical Report for the NorthMet project (Desautels and Zurowski, 2012) on PolyMet's behalf. Quality geologic data have been collected over the years from the NorthMet area that could have been used to present a more detailed and realistic understanding of the bedrock fractures known to exist at both the Mine Site and the Tailings Basin than what is presented in the SDEIS.	WR011, WR061
9968	One specific example of the type of data relevant to the nature of bedrock fracturing that have been collected but are not presented in the SDEIS is the RQD table from PolyMet's drilling database (PolyMet, 2007b)...More detail from the RQD table would allow for a greater understanding of the spatial variability of bedrock fractures.	WR014, WR015, WR023, WR071
9970	It would be very instructive [in the SDEIS] to view the spatial relationship between the lowest RQD values [from PolyMet's drilling database (PolyMet, 2007b)] and fault zones and lineament trends mapped using LiDAR data.	WR014, WR015, WR023, WR071
9972	the average RQD values for Duluth Complex rocks (93) are not that greatly different from the Virginia Formation (88) or even the Biwabik Iron Formation (80)... The RQD values of certain rock units within the Duluth Complex – unit 7 for example – have average RQD values less than or equal to the Virginia Formation (87.4 vs. 87.6). These data seem to contradict the numerous claims in the SDEIS that the degree of bedrock fracturing and therefore hydraulic conductivity values for the Duluth Complex rocks are so much lower than the extent of fracturing and resulting bulk hydraulic conductivities in the Virginia and Biwabik Iron Formations.	WR014, WR015, WR023, WR071
9974	"Evidence of several high-angle faults, consisting of brecciated intervals and fault gouge mineralization, was noted in the exploration cores from the NorthMet Project area (PolyMet 2007b)." (SDEIS p. 4-45) The statement above is accurate, but it omits important information about the dimensions of brecciated intervals and the orientation of the faults. This information would have a direct bearing on the potential for bedrock fractures to transmit significant quantities of contaminated groundwater... These specific details [found in PolyMet, 2007b (p. 16)] about the dimension of potentially very porous fault zones at NorthMet should be presented in the SDEIS and their hydrologic significance addressed in groundwater modelling where appropriate.	WR010, WR014, WR015, WR023, WR071

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
9975	The hydrologic implications of bedrock containing fault zones with field-documented dimensions on the order of several feet thick that are filled with rubbly rock at the Mine Site should have been specifically addressed in the SDEIS, but this analysis appears to be missing.	WR012
9976	it is virtually certain that the number of fractures documented from drill core greatly underrepresents the actual number of fractures present at the Mine Site. Because the faults mapped at NorthMet are high-angle faults (SDEIS, p. 4-45) and most of the exploratory bedrock drill holes at the NorthMet Mine Site were drilled vertically (PolyMet, 2007b), drill holes would not likely encounter fractures because of their high-angle orientation (Golder Associates, 2010).	WR014, WR015, WR023, WR071
9978	The SDEIS presents a discussion of lineaments lower on page 4-45 that, contrary to current geologic literature, downplays the relationship of lineaments to bedrock fractures and therefore their significance to the hydrogeology of the NorthMet Site. "Numerous lineaments have been mapped over northeastern Minnesota, but these have been associated with glacial deposition and not fracturing in the underlying bedrock (Morey 1981; Heutmaker and Morey 1982)." (SDEIS, p. 4-45) The cited literature refers to glacial "processes," not glacial "deposition" (Morey, 1981; Heutmaker and Morey, 1982). These terms do not have the same meaning.	EDIT01
9986	The argument is then made in this section of the SDEIS [on page 4-45] that since over-pressured groundwater was not encountered at NorthMet, hydrologically interconnected bedrock joints or faults do not exist at NorthMet. This rationale would ignore the simpler and well-known hydrologic situation where hydrologically interconnected bedrock fractures exist under water table conditions (Siegel and Ericson, 1980), not over-pressurized conditions.	WR012
9987	The strategy used in siting drill holes in Duluth Complex deposits would not be focused on defining fracture zones; it would attempt to avoid these areas altogether. This is not to say that mineral exploration drilling cannot provide useful hydrologic or fracture data. However, it is incorrect to conclude that because a certain set of mineral exploration drill holes did not encounter interconnected hydrologic conditions, that interconnected hydrologic conditions do not exist at Minnamax or NorthMet.	WR023, WR071, WR086, WR087
9988	There have been thousands of mineral exploration and scientific bore holes drilled into the basal Duluth Complex and footwall rocks over the past nearly 40 years. These larger datasets would undoubtedly contain information that would add to the understanding of the interconnectedness of fractures or the presence of pressurized ground water. These data are not presented in the SDEIS.	WR014, WR015, WR023, WR071
9991	The quote... [(starting with "One exploration" ending with "world")] from page 4-45 of the SDEIS stating that the upper fractured zone of bedrock has been removed by glacial scouring should be properly referenced or otherwise supported by data to be taken seriously. This statement is not supported by any of the cited references and is contrary to common knowledge that fractured bedrock is present at NorthMet. Drilling logs included in the SDEIS' supplementary materials (PolyMet, 2013i; RS-35, RS-42 and RS-46) show intervals of weathered bedrock at multiple locations thereby reducing the credibility of this statement.	EDIT01, WR012
9992	Mine dewatering will lead to an increase in the amount of oxygen that is available to weather rock in pit high walls. This increased weathering rate may be particularly effective at increasing the aperture of bedrock fractures. Rouleau et al (2003) reported that mine dewatering causes oxidation of newly unsaturated rock (including fracture surfaces) increasing the rate of chemical reactions thereby affecting groundwater.	WR173
9993	The SDEIS incorrectly characterizes the information that is available about bedrock fractures at the NorthMet site and fails to address in any rigorous fashion the potential for long-distance transport of groundwater and contaminants through bedrock fractures.	WR012

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
9999	“Due to the generally low hydraulic conductivity of bedrock, independent calculations indicate that groundwater transport in bedrock is minimal and does not affect solute concentrations at the evaluation locations.” (SDEIS, p. 5-33)The blanket statement about low conductivity bedrock at the Mine Site is not supported... The conclusion that groundwater transport through bedrock has no effect on solute concentrations can only be reached by ignoring groundwater flow through bedrock fractures, a position that is not scientifically defensible. Assumptions made in the SDEIS about hydraulic conductivity of bedrock at the Mine Site should be revised and better related to actual field conditions.	WR010, WR011, WR012, WR014, WR071, WR087, WR090, WR099, WR168, WR169, WR179
10005	“Although the presence of fractures at the Mine Site cannot be completely ruled out, site specific data, such as boring logs, indicate the bedrock appears competent, only rarely encountered deep fractures near the surface, and hydrogeologic investigations have indicated that the bulk hydraulic conductivity of bedrock at the Mine Site is very low.” (SDEIS, p. 5-33)These statements are not true... there is no debate whether fractures exist at the Mine Site; only their detailed hydrologic significance remains unclear. Reports and drilling records presented previously confirm the presence of fractures.	WR014, WR015, WR023, WR071
10103	While the SDEIS fails to acknowledge the fault that exists beneath the Tailings Basin and the proposed HRF, its location is described in PolyMet (2012a), however they suggest there is ambiguity whether this fault exists... The fault beneath the Tailings Basin and HRF is shown on all Minnesota Geological Survey bedrock geology maps covering the Tailings Basin site from 2005 to the present (Jirsa et al, 2005; Jirsa et al, 2011; Jirsa, et al, 2012)... This fault’s location is mapped based on sound geologic inference or it wouldn’t be shown. It can’t be “confirmed” unless careful excavation was carried out along the entire length of the fault.	WR015, WR023, WR069, WR071
10111	The faults shown on Figure 1 [(of Water Legacy, LehrMaps&Figures)] should have been acknowledged early in the environmental review process, and their presence should have triggered additional field studies designed to map the underlying bedrock fracture system and to characterize its hydrologic properties.	WR015, WR023, WR071
10116	due to an admitted complete lack of field data, it is clear that assumptions rather than data have been used to characterize the hydrogeologic properties of the bedrock beneath the Tailings Basin.	WR008
10194	Any conclusion that the rocks at the Tailing Basin site have lower hydraulic conductivity than the Duluth Complex rocks needs documentation to be considered scientifically valid.	WR009
10197	the SDEIS presents conflicting data in Table 5.2.2-7 where hydraulic conductivity values used as MODFLOW inputs for the Giants Range Granite are shown as being several orders of magnitude higher than the rocks of the Duluth Complex, not significantly lower (from Table 5.2.2-7: mean hydraulic conductivities: GRG = 0.026 ft/day vs. DC = 0.00049 ft/day). These blatant contradictions in the reasoning used to portray the hydrogeology of the NorthMet site need to be resolved before the SDEIS can be considered scientifically adequate.	WR087, WR168
10201	[In the SDEIS, p. 5-68-69]... the statement about construction of a slurry wall that is keyed into bedrock is in direct conflict with SDEIS Figure 3.2-28 that shows no keyed relationship between the proposed slurry wall and the bedrock beneath the Tailings Basin site. This is a very important aspect that has direct bearing on the effectiveness of the engineered system designed to capture contaminated groundwater emanating from the Tailings Basin.	WR019
10203	An existing capture and pump back system is apparently in place at ... [the south side of the Tailings Basin in the upper reaches of Second Creek] (SDEIS, p. 5-89). Its ongoing performance should be addressed in this section of the SDEIS as well as how proposed changes to the Tailings Basin hydrology over the 20-year mine life will affect these seeps and the existing seepage collection system.	WR117, WR118

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
10302	of the total amount of nickel that exists in the NorthMet deposit a maximum of only 65 to 75% is expected to be recovered and 25 to 35% will end up in the Tailings Basin bound up in silicate minerals... The same weathering process that liberates calcium to buffer acid will also cause nickel to be released from the lattice of olivine... This situation where large amounts of nickel are weathering from silicate minerals within the Tailings Basin coupled with the likelihood that significant volumes of seepage will escape capture from around the Tailings Basin is likely to lead to excessive levels of nickel migrating off-site. The SDEIS should explicitly analyze the “loss of nickel to silicate” issue, in light of the hydrogeology of the Tailings Basin.	WR025
10322	A few pages above, the term “till” was used as a general term, now in this paragraph [on page 4-46] the term “alluvium” seems to be used as a replacement term for all surficial sediments. On page 4-149 the entire package of surficial sediments is referred to as “soil”. This is more than semantics; it leads to confusion as to exactly which surficial sediments are being referenced: the entire surficial sediment section or only till units or only alluvium units or only the post-glacial soil that exists at the land surface? This usage promotes a simplistic understanding of surficial geology, which in turn is converted into overly simple and inaccurate inputs to predictive models.	EDIT01
10327	“This surficial till is relatively young (~14,000 to 60,000 years old), and has been described at a regional scale as unsorted sandy loam mixture with pebbles, cobbles, and boulders (Jennings and Reynolds 2005).” (SDEIS, p. 4-43) This statement doesn’t accurately describe Mine Site surficial sediments. First, there is more than one till unit at the Mine Site (PolyMet, 2013i; Barr, 2006b). Drilling logs in these reports provide numerous examples where multiple tills were encountered during drilling at the Mine Site. In some instances multiple tills are separated by intervals of outwash sand and gravel - some that are greater than 10 feet thick (RS-11 for example in PolyMet, 2013i). The thickness and extent of these outwash zones in the subsurface should have received more attention in the SDEIS; they represent significant pathways for groundwater flow and contaminant transport.	WR023, WR071, WR086, WR087
10328	The simplistic conceptual model of surficial geology at the Mine Site has resulted in a very simple and likely flawed plan to mitigate water quality problems that may arise from the presence of sulfur and metals in the overburden.	WR189
10335	Any NorthMet geochemical test results from unsaturated overburden presented in support of the overburden management plan in the SDEIS would be very sensitive to the texture of the material chosen for testing and its age and yet neither the SDEIS or PolyMet (2013i) report what types or textures of unsaturated overburden were subjected to geochemical analyses.	GT13
10339	“Unsaturated overburden is the material that has been above the natural water table and exposed to air long enough for chemical reactions to have taken place.” (SDEIS, p. 3-44) This statement is unsupported and misleading... This statement neither takes into account drift prospecting literature which has documented metals in fine fractions of till collected from the vadose zone even when the sulfide minerals themselves have been completely weathered; nor the fluctuation of groundwater levels between the time the oldest overburden sediments were deposited and the present time.	PD31
10396	A figure showing this isopach map [referred to on page 4-45] inserted at this point in the SDEIS would be very helpful in envisioning how the surficial sediment type and thickness varies across the Mine Site. But this map neither appears in the SDEIS or among cited reference documents. The Table of Contents for Golder Associates (2007) lists the isopach map, but the file does not appear in the MDNR DVD set and was not available for review.	EDIT01
10399	A detailed bedrock topography map would also be useful at several places in the SDEIS to illustrate where features such as troughs and bedrock valleys are located on the bedrock surface and to assess pathways that may transmit contaminated groundwater at the interface of the overburden and bedrock.	EDIT01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Water Legacy (52178)	
10408	Knowing dimensions of sand and gravel outwash layers within the overburden [(SDEIS page 4-46)] and their orientation would help predict where groundwater conduits and seeps will be located within the overburden. It appears that no surficial geologic maps for the project areas were prepared specifically for the environmental review process. This is a serious deficiency in a geologic data set that underpins so much of the predictive modeling that is presented in the SDEIS. The SDEIS, in addition, ignores most of the detail in published surficial geologic maps for the area. With respect to geology, the result is a data-poor environmental review process.	WR023, WR071, WR086, WR087
10419	The spatial distribution of permeable outwash layers and their hydrologic significance must be considered for accurate modeling of groundwater flow, but this has not happened in the SDEIS. PolyMet has carried out extensive geologic field investigations at the NorthMet Mine Site and they do report outwash to be present within the overburden (PolyMet, 2007b; 2013i).	WR023, WR071, WR086, WR087
10506	in Table 4.2.2-5... laboratory-derived hydraulic conductivity values for reported “silty sand” are shown as ranging from 0.00043 ft/day to 0.0081 ft/day. The difference between laboratory-derived hydraulic conductivity values of up to 167 ft/day reported in PolyMet, 2013 or even higher in Stark (1977) should be reconciled with the results from a silty sand presented in Table 4.2.2-5 in the SDEIS.	EDIT01
10510	It is stated elsewhere in the SDEIS, as well as being common knowledge that the elevations of groundwater surfaces in surficial sediments under unconfined conditions usually mimic surface topography... It follows from these statements, in addition to well-understood geological concepts, that 20 percent of the surficial groundwater flow paths from the Mine Site should be to the north and northeast. This seems to have been ignored and should be corrected in the SDEIS groundwater modeling or it should be better explained why near-surface groundwater flow does not follow surface topography at the Mine Site.	WR086, WR089
10512	It should also be explained why Figure 2-3 in Polymet 2012s shows flowpaths from the Mine Site north to 100 Mile Swamp and Yelp Creek. This figure shows travel times of 1-5 years and 5-10 years along these flowpaths, not the travel times of thousands of years stated in the SDEIS (p. 5-33).	WR080, WR089, WR167, WR175
10529	The SDEIS’ claim [on page 4-43] of hydrologic separation from the Biwabik Iron Formation aquifer should be supported by a more robust reference than personal communication from one of PolyMet’s consultants. The SDEIS should include an accurate geologic cross-section based on actual drilling information, showing the locations of faults and fractures, not a schematic or overly generalized cross-section where subsurface conditions can be so easily misrepresented.	EDIT01
10545	The discussion on page 4-43 describing the relationship between rocks of the Duluth Complex and older rock to the north does not fully convey the important relationship between the Duluth Complex rocks and the older rocks to the north. The Duluth Complex in the vicinity of NorthMet intrudes the argillaceous rocks of the Virginia Formation (the “footwall of the deposit”). This is not a trivial point because the Virginia Formation is responsible for supplying the sulfur to the ore deposit and because contact metamorphosed Virginia Formation in the footwall and inclusions represent some of the most reactive waste rock that will be encountered.	WR071
10549	The examples of incorrect usage of geologic terminology in the SDEIS below suggest the sections on geology were not given the level of editorial review appropriate for a scientific publication. “The NorthMet Deposit itself is below the surficial till in the layered mafic intrusive rocks of the Duluth Complex, which are part of the Partridge River intrusion.” (SDEIS, p. 4-43) Actually the Duluth Complex is not part of the Partridge River intrusion. The Partridge River intrusion is part of the Duluth Complex.	EDIT01
10554	[The examples of incorrect usage of geologic terminology in the SDEIS below suggest the sections on geology were not given the level of editorial review appropriate for a scientific publication.] “The oldest of the sedimentary rocks is the Pokegama Quartzite. These sedimentary rocks are underlain by Archean granite of the Giants Ridge batholith.” (SDEIS, p 4-43) The correct terminology is Giants Range batholith, not Giants Ridge batholith. This same incorrect usage is repeated in several additional places on pages 4-94 to 4-95.	EDIT01

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Water Legacy (52178)		
10561	The claim that there is little connection between water in the bedrock aquifer, water in the surficial aquifer and surface water is made in several places within the SDEIS. In some places these claims may be supported by data; in other places they are not [see SDEIS, p. 4-47 and p. 4-149].	WR010, WR023, WR053, WR071, WR120, WR166
10589	Without data in the body of the SDEIS to support the claim that a single pump test could lead to such an unequivocal conclusion, the reviewer is forced to search for additional tables, maps or cross-sections that could support the claim that the connection between the surficial aquifer and groundwater is “weak” [(see SDEIS pages 4-149-150)]... The statement that the interaction between surficial deposits and bedrock is “insignificant” is not supported by Siegel and Ericson (1980). Actually they stated the opposite... Other hydrologic studies carried out in the immediate NorthMet area contemporaneously with Siegel and Ericson reached the same conclusion.	WR010, WR023, WR053, WR071, WR120, WR166
10611	It has been suggested that the source of this ammonia in the bedrock aquifer is from unoxidized blasting emulsion used in the Peter Mitchell Mine to the north. The presence of ammonia in deep groundwater from the Mine Site is difficult to explain other than as surface contamination traveling deep into the bedrock groundwater system.	WR013
10613	PolyMet also intends to use peat and unsaturated overburden for construction and reclamation. These materials will be stored in unlined stockpiles (SDEIS, p. 3-44)... It is suggested that, unless specific data demonstrates otherwise, all overburden at NorthMet should be managed as reactive with the potential to leach metals. Stockpiles of overburden and peat should be placed above geomembrane liners with leachate collection systems and neither should be used in construction.	PD15
10622	There seems to be a contradiction in the definition of reactive waste rock contained in the SDEIS and what is defined in some of the supporting technical materials [(SDEIS 5-51)]... It is unclear from reading the SDEIS how this agreed-upon definition changed into the SDEIS threshold of 0.12% sulfur -- allowing Category 1 waste rock to be placed in an unlined stockpile. Even if rock with between 0.05% sulfur and 0.12% sulfur may not generate acid, it will leach metals at levels that would not meet water quality discharge standards (SRK, 2007b).	WR107, WR134
10626	Any reactive rock, as defined in the [2007] SRK report and the MDNR’s acid mine drainage research program, should only be stored above geomembrane liners with leachate collection systems.	PD15
10632	If NorthMet were to operate as proposed, at the end of 20 years of mining there could be 650 to 700 million tons of resources remaining. This number could grow larger if metal prices increase and/or metal recovery technologies improve and/or additional drilling and assaying occurs. This issue has bearing on probably cumulative effects of the project and should be analyzed as part of a revised EIS.	CU04
10635	Most of the following deposits have 43-101-compliant resource estimates prepared and some are in the pre-feasibility stage: Twin Metals Spruce Road, Maturi and Birch Lake deposits, Cardero’s Longnose and Titac deposits, Teck America’s Mesaba deposit and Encampment Minerals’ various deposits (MDNR, 2013). It is well-known that these companies are poised to begin environmental review should the NorthMet Proposed Action receive approvals. The cumulative environmental effects of these projects should be addressed in a revised EIS.	CU02
<b>Sender Name (Submission ID)</b> Wayne E Holmberg (54860)		
19343	During my employment [at the U of M Mines Experiment Station] ...copper nickel ore was found to have asbestos fiber in it when crushed down to size...If PolyMet mining doesn't use proper dust collectors is can damage our air and water	AIR03, WR151
<b>Sender Name (Submission ID)</b> Wayne E. Potratz (58137)		
19986	The monitoring of the mine site will required hundreds years of support. The mining co and the government will more than likely not fulfill its obligations for cleanup and mitigation .... This is the pattern for most mining and industrial pollution sites historically...I do not trust the corporation to fulfill its obligation once it has extracted all the metal wealth	FIN01

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Wayne E. Potratz (58137)		
20006	The trace off is too great ... 200 jobs and 20 years of extraction vs centuries of pollution and destruction... short term \$ long term problems.	SO01
<b>Sender Name (Submission ID)</b> Wayne Hoklas (45766)		
11353	I understand that there is a great need for high paying jobs in the northern iron range area, but I feel that the potential costs that the Polymet proposal holds are so huge that the possibility of several hundred high paying jobs for twenty years pales in comparison to the enormous negatives that this project represents.	SO01
11358	At a time when the world is running out of drinkable water, we are looking at the possibility of one our our states watersheds being poisoned for potentially hundreds of years is absolutely insane.	WR195
19886	...inaccuracies of the watershed in the area around the proposed site need to be addressed and possibly investigated as to why the watershed was not shown correctly.	PD38
19980	The insanity of this proposal and the cost environmentally of proceeding with this project far exceed the benefits that will be realized for an estimated 20 year period.	SO01
<b>Sender Name (Submission ID)</b> Wayne Kivela (43005)		
11515	Though some questions remain on Partridge river water flows in computer simulations, I would assume varying flow rates were analyzed and need to be added before a Final Environmental Impact Statement is issued.	WR091
11517	Mining has been and continues to provide economic benefits to Minnesota. Understanding the need to balance the preservation of our local and global environmental impacts versus the economic effects, I feel the project is environmentally and economically preferable to other options	SO10
<b>Sender Name (Submission ID)</b> Wayne Veasey (54211)		
17655	I believe you shouldn't build a min[e] because it's gonna pollute the air and also flood the lake with mud and bad chemicals. It's gonna hurt people and ruin the nature. It affects lakes, rivers. Over just getting copper. You can get copper somewhere else.	SO02
<b>Sender Name (Submission ID)</b> Wendall Maijala (42550)		
15617	I am in favor of permitting for the Polymet Project. I feel the state & federal agencies involved have covered all the bases to protect the environment of northern MN.	PER34
15618	Copper nickel mining will be a boom for the iron range.	SO10
<b>Sender Name (Submission ID)</b> Wendy Griffin (18146)		
3583	I'm asking that the state step up their control and oversight on the PolyMet site. If the state can step up and do their job, it should be a good go for both of us.	PER06
<b>Sender Name (Submission ID)</b> Wendy Haldorson (6196)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Wendy Haldorson (6196)		
1055	It is extremely important to let PolyMet prove the can mine safely in this state with the technology we have today. Not only does our state need jobs and revenue, our country needs this!	SO10
<b>Sender Name (Submission ID)</b> Wendy Hansen (44397)		
10595	I don't feel that putting jobs ahead of public safety can be justified.	SO01
10597	Please don't let a company from India put our safe, clean water at risk!	WR115
<b>Sender Name (Submission ID)</b> Wendy Jerome (4190)		
8737	100% of sulfide mines leak toxic carcinogens and sulfuric acid... We can count on the death of aquatic life and the terrestrial life - including human beings- dependent on it, if sulfide mining is allowed in Minnesota.	WI04
9881	Some think that sulfide mining would bring jobs to MN. On the contrary, it would bring a few hundred part time and full time jobs, that would be intermittent, given world ore prices. The mining would last 20 years.	SO02
9882	Minnesota would loose a slowly, but steadily growing recreation economy - and wilderness that is a world treasure for the world.	SO02, WILD02
18843	The lands proposed to be exchanged for the acres that will be destroyed by mining are not the same as the unique target areas, rated of "high biological diversity" by the Minnesota Biological Survey.	LAN03
18844	The PolyMet proposal gambles on the relocation or survival of lynx, moose, and finer interdependent systems of aquatic and land plant and animal forms which are not yet known well enough. Wild life will be lost, and food chains will be destroyed.	AQ01, WI01
18845	Substances that would leak and spread into the Boundary Waters and Lake Superior include known carcinogens, sulfuric acid, lead.	GEN01
18847	Wild rice would be poisoned by sulfates. Effects of these and other mine effluents on the natural ecosystems and on the human body have not been fully studied.	VEG04, WR156, WR157
18849	The cost to Minnesota taxpayers into the future to attempt to clean the polluted water is notaffordable, and it is not certain water, air, or land could be cleaned.	SO01
18850	PolyMet is a gamble for 20 years of 320 irregular jobs that would cost our state a huge taxburden and the permanent loss of an international wilderness treasure.	SO01
19890	100% of mines leak.	PD26
19905	Exchange of mine lands for private lands still robs wild life and future human visitors. They lose ultimately, irretrievably with land exchange.	LU06
19919	I believe permitting sulfide ore mining in MN is a risky undertaking that is nearly certain to destroy a growing recreation economy, water quality, wildlife, plant life and aquatic life and a natural heritage we preserve for the world.	GEN03
<b>Sender Name (Submission ID)</b> Wendy Moylan (40188)		

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Wendy Moylan (40188)		
14109	I am very sympathetic to the need for jobs in northern Minnesota, however I strongly urge to you stand strong in supporting ONLY projects that will move forward the goals to reduce greenhouse gas emissions.	AIR01
<b>Sender Name (Submission ID)</b> Wendy Paulsen (46979)		
10872	1. PolyMet would pose an ongoing pollution threat to the St. Louis River and Lake Superior, long after the mining stops...Unless all of this water can be captured and treated, the mine will pollute groundwater and surrounding streams and rivers...And it is my understanding that fractures in bedrock have not been adequately addressed.	WR012, WR111, WR115, WR129
10873	2. In the PolyMet mine plan fails to discuss financial assurance adequately - there are no details of the amount and type of damage deposit adequate to cover the cost of treating polluted water for hundreds of years.	FIN05, FIN08
10874	3. The tax estimates in the PolyMet mine plan lack detail and are full of discrepancies. From one draft of the mine plan to the next the estimated taxes jumped 500% without explanation. This is important, since the state taxes that would apply to a copper-nickel sulfide mine have never been used before. The copper-nickel mining industry is exempt from several state and local taxes, such as property tax and corporate income tax, and has its own unique tax structure. Therefore, the State of Minnesota should confirm these tax estimates, and not just rely on the company to provide them.	SO04
10875	4. PolyMet has never operated a mine before, and is dependent on their largest investor and “strategic partner” Glencore for much of their revenue. Glencore currently owns 25% of PolyMet, with the option to increase their stake to 33%. Glencore also owns the first five years of minerals produced by PolyMet if it opens... It has a long history of environmental pollution, human rights violations, and anti-labor practices. The SDEIS should be revised to recognize Glencore as the party responsible for permitting.	PER02
10876	5. The PolyMet SDEIS fails to adequately assess important risks to human health from the pollutants that would be released from this project. The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the PolyMet SDEIS is particularly troubling.	HU01
10878	6. Federal and state law require environmental impact statements like the PolyMet mine plan to consider a range of alternatives. That is done to ensure all reasonable options to protect the environment are considered... PolyMet mine plan does not consider any alternative to their proposal other than a slightly different version of a land exchange.	ALT21
16692	The SDEIS has no contingency plans for mechanical break-downs in the complicated filtration system that PolyMet proposes to treat the polluted water, even though that system would have to operate for centuries. PolyMet's water treatment system isn't prepared for the super-storms that are growing more frequent due to climate change.	WR176, WR180
16693	Worse, PolyMet's model doesn't even prove that the pollution stops after 500 years. Instead, the company simply stopped modeling at 500 years. In other words, the pollution could go on for even longer.	WR035
16694	The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of mercury and other air pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	MERC08, MERC20
16695	SDEIS be revised to provide more complete information on mercury and sulfate air pollution emission and deposition, water pollution seepage from various sources, and the potential conversion to and bioaccumulation of methylmercury resulting from releases to the environment and hydrological changes from the proposed PolyMet project.	MERC08, MERC20

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Wendy Paulsen (46979)		
16696	There are several alternatives that should be considered and evaluated in the PolyMet mine that are simply discarded. These include whether the PolyMet proposal could operate as an underground mine instead of an open pit, and whether all of the waste rock created by PolyMet should be backfilled into the mine pits after closure.	ALT01, ALT03, ALT06
<b>Sender Name (Submission ID)</b> Wendy Robertson (18349)		
2532	I am also concerned and alarmed of the SDEIS plan to mitigate the 930 million (phonetic) acres that wasn't previously mentioned. The wetlands that will be eliminated by PolyMet's infrastructure, mine, waste piles (phonetic), et cetera, it is crucial that we take a look at it.	WET24
2533	The Federal US Army Corp of Engineers' mitigation role requires that (inaudible) before mitigation, which replaces the loss of wetlands, function within the same Hydrological Unit Code, HUC. The word to focus on here is "function."...functions of the wetlands will be lost by having the mitigation outside of our area. Having the compensatory sites in Simm (phonetic), Aitkin and Hinckley will not replace the loss of wetlands' functions to nature and the public.	WET03
2534	I also request that the lead agencies extend the time for public comments by three more months; 108 days. And 2,000 plus pages is a lot to digest and make educated comments	NEPA07
2535	I protest having these three public hearings in January, which is the coldest winter month. The cold and icy weather may impair comments by the elderly, sick and the disabled. You are disenfranchising these groups.	NEPA10
10931	this document fails to place the prospective mine within a larger historical, economic, and environmental perspective	CU02
10937	The primary failing of the SDEIS is that, seen from a broader perspective, it is internally inconsistent, reflecting a larger social schizophrenia wherein we demand both economic growth and a functional environment.	SO01
10940	But to be fair, and to the central point, all these agencies have been given an impossible mandate by wtp, namely to both promote economic growth (p.1-12) and to protect the environment	PER42
10941	the SDEIS attempts to regulate the acceptable impact of a proposed mine, yet it does not limit the number of hardrock mines in the watershed, the region, or the state, hence there is no limit to total impact. ... If wtp [we the people] and our representative agencies were serious about environmental protection, we would, in lieu of outright rejection, cap-and-trade this type of mining: we would put up for auction one and only one (the cap) right-to-mine permit (rtmp) for sulfide mining.	CU18
10945	The SDEIS simply trades one form of impact for another, it does not reduce its quantity, and transforms it to a form that is not as localized and not as immediate.	GEN01
10948	The SDEIS has a glaring omission: enforcement of the conditions of the permit...regulating personnel would [should] have to have an office or trailer on site, and be staffed by a rotating team of specialists, from construction inspectors, hydrologists, air quality specialists, to environmental chemists. They would be intimately familiar with the permit conditions and see that they are being fulfilled.	PER06
10951	Inspectors and enforcement personnel on large project sites can lose control, and as employment and investment accumulate, the the political power of Polymet can overwhelm the regulators, so that the company may do as they please, witness the existing toxic conditions at the plant site--the legacy of the former LTV plant--as cited in the SDEIS.	SO02
10952	The Cumulative Effects portion of the SDEIS not only fails, but fails spectacularly.	CU03

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Wendy Robertson (18349)	
10955	The SDEIS should have included a concise summary of how much of the planet’s ecosystem would be destroyed and compromised if this proposal is realized.	NEPA15
10956	The title history of Tract 2 of the land exchange seems odd, even suspicious...Its title was in the public domain (Lake County), passed into the private domain by purchase, and then is to be used in exchange for public lands (p. 4-396). So what was once public becomes public again to offset loss of Federal land to Polymet. The purchase of county land by Lake Forest Enterprise, Inc. should have been detailed and made transparent in the SDEIS. Was this by auction as is usually required?	LAN04
10957	The SDEIS omits a whole class of external costs, namely the social costs associated with the potential industrialization of northeast Minnesota.	SO04
10960	Given the volume of the SDEIS, its most notable success is the effective limit on serious and thoughtful commentary by the abbreviated time allowed for its reading, for subsequent deliberation, and comment writing.	NEPA07
10961	As the three lead agencies “have jointly prepared the SDEIS” (opening sentence of the COVER SHEET), how can it be that these same agencies that will issue the critical Record of Decision?	NEPA08
10962	The several sections of the SDEIS dealing with GHG emissions are confusing and contorted..... First it is noted that the annual GHGe emissions are under the USEPA threshold (Table 5.2.7-7), but we later are told that the threshold is not a limit, but rather would simply require BACT for these emissions (p. 5-429).	AIR01
12234	The SDEIS does not address the cumulative effects of the additional mining companies that are waiting in the wings for future permits.	CU04
12237	The SDEIS has several issues in watershed mitigation that are not addressed.	WR130
12238	I am asking that the agencies involved to extend the comment period for an additional 90 days.	NEPA07
14633	The lands surrounding these wetlands are also indirectly altered and these will not be even considered in the total.	WET01
15183	the SDEIS must also require a financial assurance package, no only for shutdown and cleanup (after the company has extracted and sold their sub-surface mineral property and can leave), but also for construction and operation.	FIN01, FIN08
15184	The SDEIS simply trades one form of impact for another, it does not reduce its quantity, and transforms it to a form that is not as localized and not as immediate. Carbon dioxide is transparent and therefore out of sight.	AIR11
15185	such regulations don’t impose limits at all. Take for instance the infamous sulfate standard; not only does it not cap the amount of sulfate that can be discharged into the environment, it does not even cap its rate of discharge: time units do not appear in the denominator of the standard. It is a concentration limit only; to meet the standard Polymet has merely to add water. Or consider the BACT standard, which may reduce impact from what it may have otherwise have been, but sets no mass or rate limits.	PER06
18745	I was fortunate to be selected as one of the 80 plus speakers to give testimony. Given that many others did not have the opportunity to speak only reflects the insufficient amount of time for public comment at hearings and the refusal to extend the comment period on this SDEIS. I am asking that the agencies involved to extend the comment period for an additional 90 days.	NEPA07

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Wendy Robertson (18349)		
18746	The SDEIS does not address the cumulative effects of the additional mining companies that are waiting in the wings for future permits. They are watching to learn what happens as the Polymet process breaks ground in asking to be permitted. By ignoring this glaring omission, I can only conclude that you are not reading the investment brochures of mining companies that are seeking worldwide investors currently.	CU04
<b>Sender Name (Submission ID)</b> Wendy Saliin (39118)		
5182	Minnesota boasts countless beautiful natural spaces; it is what draws people to Minnesota and what holds them here. Therefore, preservation of clean water and wilderness will provide a more sustainable economic stimulus to state, local, and regional economies than mining.	SO01
5183	A copper scrap metal recycling project would be a sustainable alternative to the boom and bust cycle of mining.	NEPA06
5184	Mercury contamination is already a problem in area lakes, posing a major problem to humans and animals who consume fish from these waters - we already know that this is especially dangerous to pregnant and nursing mothers, infants, and young children. Sulfide mining is known to increase mercury levels in water.	HU03
5187	The WHO lists 10 chemicals of major public health concern. Sulfide mining involves 5 of them: mercury, arsenic, lead, asbestos, and air pollution. All Minnesotans could potentially suffer the ill effects of these chemicals, but this is especially of concern to potential future employees of the mine.	HU03
18251	Natural beauty and a healthy natural environment are not only important to the health and well-being of Minnesotans, they are also a crucial component of state, local and regional economies.	SO04
18258	Minnesota does not deserve to bear the burden of so much risk when likely so little lasting benefit, economic or otherwise, would exist.	SO01
18261	TAXPAYER BURDEN... we are mulling over the possibility of a mining project that we acknowledge will pollute regional waterways for a minimum of 500 years?!	FIN10
<b>Sender Name (Submission ID)</b> Wendy Schlueter (10936)		
633	The City of Babbitt also thanks PolyMet and the State of Minnesota for being open to the advanced technologies and compliances adhered to for fulfilling and challenging employment opportunities the mine will provide.	NEPA16
634	We are also confident that the mining company and its entities will be in compliance in every aspect to promote this very important and necessary economical job source to Minnesota.	SO10
<b>Sender Name (Submission ID)</b> Wes Bailey (43244)		
15803	The short-term gains (the vast majority of which will go to out-of-state shareholders) are absolutely not worth the risk to our state's clean and living waters.	SO01
<b>Sender Name (Submission ID)</b> Western Lands Project (42975)		
7997	The fundamental flaw underlying the proposal and the analysis is the proposition that the conflict between Polymet's mineral rights and the National Forest surface ownership "needs to be resolved." That may be the case from Polymet's point of view, but for the Forest Service and the public on whose behalf it manages the forest, there is no conflict. The land is protected from subsurface exploitation, as it should be.	LAN04, NEPA04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Western Lands Project (42975)		
8755	The proposed land exchange does not serve the public interest as required under both the Federal Land Management & Policy Act (FLPMA) and the Weeks Law. The proposal was brought forward by and in service of private interests, and it the duty of the Forest Service to protect the interests of the public in the lands at issue, acquired under the Weeks Law.	LAN02
15159	We are particularly troubled that the Forest Service would entertain a land exchange that does not consolidate ownership of the public lands, but would result in a split estate on land the Forest Service proposes to acquire-- this is drastically counter to fundamental federal land exchange policy and jeopardizes the public interest. The split estate poses two threats: that mining could occur on some or all of the land and/or future land exchanges could be leveraged by way of threats to conduct mining or exploration that would damage surface lands belonging to the public.	LAN02, LAN04
<b>Sender Name (Submission ID)</b> Weston (45272)		
9159	I am strongly against the mine. It will destroy the environment in northern minnesota	GEN01
<b>Sender Name (Submission ID)</b> Whitney Morgan (57248)		
17376	In the review it is stated that potential exists for the release of amphibole mineral fibers from the proposed operations, which could pose a potential public health risk of uncertain magnitude” this is extremely alarming to me. The fact that, that statement can be made in a project’s Environmental Review should let alone be the deciding factor in not approving sulfide mining in Minnesota.	HU05
17378	I believe the detrimental effects from mercury that would be emitted is not accurately reported. In a letter approved by many Duluth area physicians it is stated that the review doesn’t report the amount of mercury that will discharge into our local watersheds. Due to this lack of information, the review is not complete for mercury pollution is extremely dangerous to our communities health and eco systems.	MERC16
17379	I believe the health effects of sulfide mining is not accurately reported. Many Duluth area physicians have come out to state that the review doesn’t properly deserve all of the health impacts that would come with sulfide Mining. ... sulfide mining would threaten my entire communities health by exposing lead, arsenic, lead, asbestos and mercury pollution into our air and water. These threats need to be included in the projects environmental review, along with the major health impact they will have on my family, friends, and community.	HU03
<b>Sender Name (Submission ID)</b> Whitney Snyder (12288)		
1653	There is no such thing as clean mining and we should stop putting profits before before the environment.	SO01, WR195
<b>Sender Name (Submission ID)</b> whonka80 . (36502)		
14267	No evidence exists (to my knowledge) that this can be done safely. Not worth it. I take clean water over jobs.	WR115, WR195
<b>Sender Name (Submission ID)</b> Wiggs (42912)		
9446	The Arrowhead - with its highly permeable soils and vast water resources would be exceptionally vulnerable to such problems [groundwater contamination].	WR090, WR107, WR108
9449	The cumulative environmental effects of a vast new copper/nickel mining district [NorthMet] would be catastrophic to an exquisitely environmentally sensitive and priceless region.	CU11

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Wiggs (42912)	
9450	If copper mines and their associated industry are developed, as proposed and planned...resulting in unacceptable levels of groundwater and surface water contamination, along with other irreversible and devastating environmental and aesthetic damages.	NEPA09
9452	The 2004 EPA report identified 156 hard rock mining sites nationwide that have the potential to cost between \$7 billion and \$24 billion in total to clean up (at a maximum total cost to EPA of approximately \$15 billion).	FIN08
9454	The results [of the Minnesota Department of Health study] showed the highest levels of babies affected [by toxic levels of mercury] were in Minnesota, at 10 percent, with 3 percent in Wisconsin and none in Michigan.	MERC03
9455	Fetuses, infants and children are most at risk from mercury exposure because even small amounts can harm the developing brain and nervous system.	MERC03
9456	The pristine Arrowhead region and Minnesota have a lot at stake...The BWCA [Boundary Waters Canoe Area] alone is visited by over 250,000 every year.	WILD02
9457	According to the state, tourism translates to about 235,000 Minnesota jobs - 11 percent of the state's total private-sector employment.	SO02
9458	In 2004 an EPA special report on hard rock mining in America was done. The US EPA report states, of the approximately 156 such hard rock mines currently on the Superfund National Priorities List, 40 percent of these will take from 40 years to 'in-perpetuity' to clean up. Effectively meaning they will continue to leak toxic metals and acid mine drainage into the surrounding environment, and watersheds, quite literally for thousands of years. This is not speculation.	PD26
9459	And the tourism sector generated \$732 million in sales taxes alone last year, about 17 percent of the state's total sales tax revenue.	SO02
9460	Our [Minnesota's] reputation for the purity of this most valued resource – our water and woods – it is the prime draw for tourism - and is in grave danger of being irreparably damaged.	SO02
9461	This process of mining brings massive amounts of 'sulfide-bearing rock' to the earth's surface, pulverizes it, and exposes it to substantial amounts of weathering.	AIR11
9462	In addition to major issues arising from dust and air pollution problems, the minerals gradually oxidize to form dilute sulfuric acid and ferric hydroxide, resulting in the mobilization of toxic heavy metals and acid mine drainage to the surrounding environment.	HAZ03, WR151
9464	The 2004 US EPA special report on hard rock metals mining notes that currently, the US Forest Service estimates, that an astounding 10,000 miles of streams and rivers have already been heavily polluted by this mining industry.	WR023
9467	Mercury contamination of our waters is already significant.	GEN01
9468	The Polymet project is only the first of many companies waiting in line to change the very nature of this area as we know it. There are now at least 11 more ready and waiting or in various stages of exploration.	CU04
9469	The cumulative effects [of mining] will bring staggering change to a priceless and mostly still pristine area.	CU11
9470	This land [proposed location of NorthMet] does not belong to the mining companies or elected officials to do as they please.	PER45

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)      Wiggs (42912)</b>		
9471	The reality of the situation is that in the real world the development and ongoing day to day operation of such facilities are rarely ever in complete accordance with the permits issued - Particularly during the operational life of such a massive and complex ongoing concern.	PER35
9472	With large industrial operations, there is always variation, operator error and accidents, along with the possibility of outright intentional deviation from permissible operating standards.	PD22
9473	As a positive alternative to mining away our more valuable and sustainable scenic natural resources, why not put a fraction of the effort we are using on mining into attracting businesses and industry that would enhance our region, and value our natural environmental assets.	SO04
9477	This area is prime habitat to the endangered Canada Lynx which has been seen in increasing numbers in the area.	WI02
9478	The Polymet mine should not be granted permit to operate. (...) I ask you to reject the permit application on the basis of specific environmental points and on the overall intent to protect this most precious and pristine region from destruction.	PER35
9479	The Cumulative environmental effects of the many hard rock mines proposed for this region have not been adequately or accurately addressed.	CU03
9480	Polymet's application does not adequately address water movement around and under the site.	PD03, WR003, WR012, WR189
9482	Groundwater and surface water is not adequately or accurately modeled in the [proposed] plan.	WR003, WR189
9485	The Cumulative effects of many mines and related operations - as they would impact the nations favorite wilderness area – the BWCA and surrounding area - has not been adequately addressed.	WILD01
9486	The proposed mine is in the Superior National Forests. The intent of the National Forest is to protection from this type of massive industrial incursion. The land swap circumvents and undermines the intent of the protection of our national forests.	LAN02
<b>Sender Name (Submission ID)      Will Munger (13652)</b>		
125	With this [fish advisories due to mercury] in mind, I would like to see the EIS specifically address issues that can assure us that conditions, with specific regard to water quality, can continue to improve or at least be maintained on the river if permitting of sulfide mining is approved.	MERC02, WR130
127	I would like to request that a cost benefit analysis be done of the proposed North-met Project to determine if the benefits of sulfide mining outweigh the seeming high risk experienced with this kind of mining and the known impacts that such mining is known to have.	SO01
129	I would like to request that scheduled tours of the mine site be continued but be better publicized so the general public can be better informed and see first hand the scope and nature of the project being undertaken. In addition these tours should be conducted by objective 3rd parties, not the mining companies.	NEPA10
130	I would like to suggest that more attempt be made to provide non technical statements that are briefer and easier for lay people to fully understand and digest.	NEPA07
134	If this same information [public hearing information] could be presented in community libraries for a reasonable time ahead of future hearings that would be very helpful.	NEPA10

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Will Munger (13652)		
1719	I would like to see the EIS specifically address issues that can assure us that conditions, with specific regard to water quality, can continue to improve or at least be maintained on the river if permitting of sulfide mining is approved.	WR035
1720	With this in mind I would like to call for the contracting of an objective third party consulting firm to evaluate all aspects of the permitting process to insure that a fully objective evaluation process for approval or disapproval is done.	PER01
<b>Sender Name (Submission ID)</b> will perry (38534)		
9673	I am concerned that over time pollutants will leach into the water and work their way into Lake Superior and other water systems in the area.	VEG06
9674	[The SDEIS states] "Financial assurance...would occur for as long as needed to meet environmental standards". I have several concerns with the "as long as needed" part of these statements: How...will PolyMet remain financially available to pay the continued costs of reclamation?	FIN01
13570	The plan looks good on paper. But we are talking about long-term impact on a precious resource in exchange for short-term gain...I think there are too many areas in which something could potentially go wrong for this project to occur in this vulnerable area of our state.	SO01
<b>Sender Name (Submission ID)</b> Will Tajibnapis (7202)		
9346	the pollution from mine tailings and waste heaps would last for at least 500 years. Setting aside money and resources, and making plans to control pollution for 500 years or more is simply impossible.	FIN01
<b>Sender Name (Submission ID)</b> William (Bill) Gramer (43358)		
11746	It appears that the SDEIS thoroughly vetted all the key environmental issues to insure Minnesota Environment is protected. Great work.	NEPA16
11747	I believe now the approval for initial permitting should be accelerated in further assist Minnesota enviroment through new form of tax revenue as the IronRange Job market experiences the positive economic multiplier effect of new safe jobs.	PER34
<b>Sender Name (Submission ID)</b> William A Illegible (54798)		
18132	We are concerned that there be adequate long term assurance (with teeth) that the applicants will pay for any [illegible] damage that may [illegible] in the future. A bank-issued [illegible] would be a great solution, but hardly feasible for hundreds of years.	FIN01, FIN08
<b>Sender Name (Submission ID)</b> William Cunningham (36344)		
3758	I request that the MDNR allow a longer time for public comments on the SDEIS and a correction of the document to address issues of water flow measurement and mapping as well as the lack of convincing financial assurance for several centuries of monitoring and treating effluents from the project.	NEPA07
3759	Glencore, the parent company of PolyMet has an extremely poor history of environmental, human rights, and labor abuses. This is an even greater reason to view PolyMet's claims with suspicion.	SO02
3760	If PolyMet is allowed to go ahead, it will be much harder to stop other mines that are closer to the BWCA.	CU04

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> William Cunningham (36344)		
3763	Sulfide releases from mining and processing this ore will destroy important wild rice resources and violate treaty agreements with Native American tribes. The state of Minnesota should enforce strict sulfide pollution standards in all wild rice waters.	VEG04, WR156, WR160
3765	The fact that water flows in the Partridge River were miscalculated mean the the water model used in the Draft EIS is flawed and needs to be redone.	WR003
3768	...I think there's an error in assuming that no water will flow out of the mine site and processing area into the BWCA. Groundwater contours in the "One Hundred Mile Swamp" where waste rock will be stored, show drainage into Langley Creek, which is a tributary of the Kawishiwi River, which flows through the BWCA and along the Canadian border lakes.	WR080
13732	PolyMet says it will provide adequate insurance to treat effluent from the mine for hundreds of years. I don't believe it's true. Historically, once the ore has been plundered and the profits extracted, mining companies declare bankruptcy and simply walk away, leaving the public to clean up the mess. I think that's going to be the case if PolyMet is allowed to proceed.	FIN01
<b>Sender Name (Submission ID)</b> WILLIAM DOW (17310)		
9990	Some short-term and unpredictable jobs don't out-weigh the high risk of damage to the environment.	SO01
<b>Sender Name (Submission ID)</b> William Durbin (42823)		
7297	Projected mercury emissions, degraded wildlife habitat, damage to wild rice stands, and the potential for long-term acidification of our streams, lakes, and groundwater make this a dangerous project.	VEG04, WI02, WR001, WR156
7297	Projected mercury emissions, degraded wildlife habitat, damage to wild rice stands, and the potential for long-term acidification of our streams, lakes, and groundwater make this a dangerous project.	WR115, WR195
7298	We depend on clean water for recreation, fishing, and tourism. According to the Minnesota Department of Revenue, in 2011 the tourism in Northeastern Minnesota generated over 700 million dollars and provided private sector employment to 16,000 people. Any denigration of our natural resources would put this money at risk.	SO02
7298	We depend on clean water for recreation, fishing, and tourism. According to the Minnesota Department of Revenue, in 2011 the tourism in Northeastern Minnesota generated over 700 million dollars and provided private sector employment to 16,000 people. Any denigration of our natural resources would put this money at risk.	SO02
7299	Demanding full financial assurance in the form of a full bond against potential cleanup costs should be a minimum requirement before proceeding with any new, high-risk mining...	FIN08
7299	Demanding full financial assurance in the form of a full bond against potential cleanup costs should be a minimum requirement before proceeding with any new, high-risk mining...	CR01, CR05
15532	Project is far too risky to proceed. Water quality is paramount!	WR195
18239	As a former employee of United States Steel and member of Local 1938, I'm not opposed to mining, and I understand the value of utilizing natural resources. However, Polymet's proposed sulfide mine puts the quality of life in Northeastern Minnesota at risk.	SO02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> William Durbin (42823)		
18239	As a former employee of United States Steel and member of Local 1938, I'm not opposed to mining, and I understand the value of utilizing natural resources. However, Polymet's proposed sulfide mine puts the quality of life in Northeastern Minnesota at risk.	SO02
<b>Sender Name (Submission ID)</b> William Emery (54526)		
19040	I think granting the permits for Polymet Co. mining sulfide would be very damaging to the environment and especially the water system in the state of Minnesota. Pollution of water entering Lake Superior is totally unacceptable and should not be allowed.	WR111
<b>Sender Name (Submission ID)</b> William Fischer (36314)		
3658	the short term projected benefits (mainly geographically specific jobs of dubious long-term value) could not possibly justify the long term likely cost externalities (mainly perpetual environmental costs) associated with the proposal.	SO01
3659	corporate or business promises of paying for the cleanup are irrelevant - as soon as the mine is no longer profitable it will be closed and the shell company will just be bankrupted leaving MN with the damaging legacy of this project. Even if this were not the case, most companies today that do not employ practiced bankruptcy as a SOP simply do not exist long enough to pay for this type of cost.	FIN01
<b>Sender Name (Submission ID)</b> William Gustavus Heeguard (57205)		
17100	1.Please explain why no health impact study was not performed both in regards to human, animal (moose) etc. and aquatic species (plants and animals)	AQ05
17102	4.What protection do we Minnesotans have if this mine goes bust in 10 years – will we have to pay for cleanup like Butte, MT	FIN01, FIN10
17103	2.What exactly is the contingency plan of the Polymet mine3.Is there a parent company	PD11
<b>Sender Name (Submission ID)</b> William H Duncan (1769)		
520	I'm assuming if Polymet readily acknowledges a 200 year necessary clean-up, it could be considerably longer.	PD29
7988	A twenty-year mining boom, 200 years to filter the waters...What injustice will those unborn generations feel, to be burdened with the toxicity of today's relentless, ruthless pursuit of GDP growth.	SO01, WR115
<b>Sender Name (Submission ID)</b> William K. Dustin (41985)		
2583	The mineral resources in question here are being given away for the permanent benefit of an alien corporation and a temporary economic benefit for a relatively small, but extremely vocal, group of Minnesotans. What has not been addressed is that the proposed action violates the ethical principle of generational equity.	SO02
2584	Since this low grade mineral resource is not going to get up and walk away, I suggest that... permitting be suspended to allow the citizens of Minnesota to consider a constitutional amendment that would establish a permanent fund to compensate future generations for these losses.	FIN05, FIN08

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	William K. Dustin (41985)	
2585	What other groups or individuals were involved [in preparing SDEIS besides Polymet and Tribes being involved]? How closely did the authors of the document work with PolyMet, and did any personal relationships result there from? Are any of the authors hoping to find employment in the mining industry?	NEPA18
2586	“The NorthMet Project Proposed Action has changed substantially since preparation of the 2009 DEIS.” This remark appears fairly frequently in the SDEIS.....I got the impression reading through the SDEIS that it was written to rule—i.e. a response was conceived that would fit the rule, but there was no evidence of where it has been done in practice. In other words, what is being proposed here is an experiment that could well fail.	NEPA09
2587	...once the negative externalities [of the proposed action] become evident at some point in the future, no one will be held accountable. The present actors will have taken their profit and left the scene and the current regulators will have retired.	FIN01
2588	p. 3-5 “PolyMet would be held accountable to maintenance and monitoring required under permit and would not be released until all conditions have been met.” How will PolyMet be held accountable?	FIN01
2589	p. 3-6 “ The Land Exchange Proposed Action would include up to five tracts of non-federal lands in St. Louis, Lake, and Cook counties that would comprise up to 6,722.5 acres (GLO); .....” This looks like a copout. A lesser acreage should not be accepted.	LAN03
2590	p. 3-7 “Long-term, post-closure monitoring and adaptive management involving mechanical treatment for as long as required until if and when non-mechanical passive treatment is proven at the site, for affected water from the pits, permanent stockpile, Hydrometallurgical Residue Facility, and Tailings Basin.” Who is going to do all of this? If it is the state, are there FTEs in the budget?	FIN01
2591	p. 3-39 How much additional waste will be derived from the ore? This is low grade ore where 99% is waste.	PD15
2592	p 3-41 “It would be necessary to dewater the pits during mining to remove groundwater and precipitation runoff. These waters would be directed to low areas in the pits, collected in sumps, and pumped to the WTF. The mine pit sump areas and pump capacities would be designed to minimize delay to mining operations during the typical spring snowmelt or major precipitation events.” Who is going to design the pumps and where have they been tested?	PD24
2593	p. 3-52 “However, should water monitoring undertaken during or following operations indicate a need to do so, the WWTF could be expanded or treatment capabilities modified to meet water quality standards.” How will this be guaranteed?	PD24, WR130
2594	p. 3-59 “PolyMet would be held accountable to maintenance and monitoring required under permit and would not be released until all conditions have been met.” How will this be enforced? What about bankruptcy?	FIN01
2595	p. 3-64 “The overburden portions of the pit walls would be sloped and graded at no steeper than a height-to-vertical ratio of 2.5:1 ..... There would always be a clear path to the water surface.” Here is an example of writing to rule. It looks like these proposals are being made up as you go along. There is no enforcement mechanism.	PD24
2596	p. 3-91 [Referring to the sentences] “New tailings would be placed ....existing geotechnical conditions at the Tailings Basin and Hydrometallurgical Residue Facility.” This doesn’t make sense. My understanding is the existing tailings basin is already leaking AMD into the environment.	PD10
2597	p. 3-117 and Figure 3.2-28 “Along the eastern side of the Tailing Basin, high bedrock eliminates groundwater seepage. Along the southern side, surface features result in all seepage emerging at a surface seep.” Assumption [that the bedrock eliminates groundwater seepage] is the mother of all screw-up’s.	PD12, PD13, WR105

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	William K. Dustin (41985)	
2598	p. 4-139 “Subsequent to publication of the DEIS, baseline wetland types were re-evaluated. Additional field visits were conducted from April to October 2010, in addition to further mapping efforts.” Did this result in a lowering of standards?	WET21
2599	p. 4-149. “The hydrology of the wetlands at the Mine Site has been stable over time.” This stability should be preserved to prevent pollution of the One Hundred Mile Swamp and the headwaters of the Partridge River.	WET19
2600	p. 4-170 “Of the wetlands that are located on the Mine Site, the majority (92 percent) is rated as having a high overall wetland quality and 8 percent are of moderate overall wetland quality.” This is why the wetland mitigation proposal is unsatisfactory. An artificial wetland cannot replicate a natural wetland, particularly wetlands that are the source of a waterway.	WET05
2601	p. 4-173 [Referring to sentences:] “Sites of High Biodiversity Significance contain very good-quality occurrences of the rarest species,.... which is 85 percent of the Mine Site.” This is another reason as to why the land exchange is inadequate.	VEG02
2602	p. 4-247 “The climate for the NorthMet Project area and Minnesota, in general, is defined as continental. The region is subject ....to more frequent Arctic air masses.” How is global warming being factored into the models used to determine long term cleanup and monitoring?	AIR01
2603	p. 4-304 “For most Native American tribes, subsistence is synonymous with culture and identity.” The Native American tribes will need to be included in some way with respect to the proposed permanent fund.	CR01, CR06
2604	p. 4-435 [Referring to sentences:] “Wildlife habitat was rated high ...human disturbances or effects.” “Amphibian habitat was rated high ...to successfully reproduce.” This as another reason not to disturb the wetlands, particularly with respect to amphibians, because this group is experiencing the highest level of species extinction. They seem to be very sensitive to environmental pollution.	AQ19, WET24
2605	p. 4-436 “The federal lands were found to have 1,889.4 acres (29 percent) of floodplain (500-year floodplain) and these floodplains are not FEMA regulatory floodplains.” What will happen if there is a 500 yr. flood? Global warming could make flooding more common.	WET14
2606	p. 4-440 “The value of the wetlands or floodplains for properties received and conveyed is equal (balancing test) and the land exchange is in the public interest.” I doubt that the properties exchanged are equal, but it [is] a privatized interest, not a public interest.	WET14
2607	p. 5-7 “The Co-lead Agencies have selected the 90th percentile probability (P90) as its evaluation threshold in determining whether the model results meet established evaluation criteria...” P90 is an unacceptable level of significance. Most statistical research uses P95 as the level of significance, and in this case, where there is the potential for severe pollution, the level should be P99. In addition, statistical modeling is not the same as demonstrating that this type of mining can be done without significant environmental damage. There is an extreme amount of uncertainty in computer models.	WR110
2608	p.5-69 “The probability functions are based on the variability of measured data, professional judgment, or both.” Whose professional judgment? PolyMet’s?	WR073, WR189
2609	p.5-152 The evaluation criteria are not shown on the graph.	EDIT01
2610	p. 5-223 It is unfortunate that this type of wetland mitigation is allowed because it is not adequate.	WET05
2611	p. 5-226 “Additionally, wetlands in the Northshore Mine and areas directly north of the Northshore Mine have been excluded from the evaluation.” Why?	WET08

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	William K. Dustin (41985)	
2612	p. 5-247 “Under this methodology approach, the likelihood of wetland hydrology effects would be as follows:...” This methodology is unclear...	WET08
2613	p. 5-298 “Therefore, monitoring of wetland hydrology and vegetation communities would be the most appropriate way to document the extent and magnitude of wetland responses to the NorthMet Project Proposed Action.” Who is doing the monitoring? Using what criteria?	WET02
2614	p. 5-333 “Should the USACE determine that a greater percentage of the compensation be accomplished within the St. Louis River Watershed/Great Lakes Basin, the applicant may be directed to re-evaluate compensation opportunities within that watershed.” ... Will the public be notified if it does?	COE02
2615	p. 5-448 What is the impact of blasting on bedrock fracturing leading to potential groundwater pollution?	WR016
2616	p. 5-493 “The NorthMet Project Proposed Action would create slightly increased demand for housing and public services in cities and towns near the NorthMet Project area.” There will be excess housing and less demand for public services at mine closure.	SO02
2617	p. 5-496 “Prices based on PolyMet’s 2008 Bankable Feasibility Study (PolyMet 2008). This is the most detailed published information available, and PolyMet is legally bound to these data.” What does legally bound mean here?	SO04
2618	p. 5-513 “After closure, PolyMet would retain ownership of the Mine Site and the federal lands, and public access would likely remain restricted.” What is PolyMet going to do with the site after closure? Is public access restricted because the site is heavily polluted?	PD30
2619	P5-514 “The Plant Site is located at the former LTVSMC processing plant. It is owned by PolyMet, and it is not open to the public. Entry roads are gated and/or guarded. No recreational activity is permitted at this site, nor would it be permitted during construction, operation, and closure of the NorthMet Project Proposed Action.” Who will be permitted to access the site to monitor compliance with all permits?	PD24
2620	p. 5-534 “All hazardous materials would be transported by commercial carriers in accordance with state and federal hazardous material shipping requirements.” How adequate are these [hazardous materials shipping] requirements in light of all the accidents resulting from rail transport of crude oil from North Dakota?	HAZ06
2621	Section 5.3.5 Wildlife don’t care about who owns the land, they only care about habitat, and the land exchange will result in a loss of habitat.	WI02
2622	To not account for these so called speculative actions [described in Section 6.2.2.1.21] in considering the combined effects on the environment in unconscionable. For evidence that these activities are more than speculative refer to the March 1, 2014 edition of the Ely Echo, which, on page 7, has an article with a map entitled “Twin Metals unveils first look at proposed mine operations”.	CU02
2623	p. 7-10 “Irreversible commitments of resources are those .... ore or wetlands that would be permanently converted to rock stockpile.” ... You might add that once started, there is no going back. If PolyMet violates the terms of its permits, they know no one is going to shut them down.	PER06
2624	p. 7-12 Modeling is not the same as a physical demonstration. Reverse osmosis has been mentioned in this document and is supposed to start being used ad year 20. How will this work and where has it been physically demonstrated?	WR143
2625	p. 8.8 “Also, preliminary economic screening by PolyMet determined that sale of metal precipitates produced from an underground mine would not meet the NorthMet Project Proposed Action Purpose and Need,....” Why?	NEPA01
2626	p. 8-10 “If actual NorthMet Project Proposed Action effects were found to be higher than predictions, then steps could be taken to reduce those effects.” What [are those] steps?	WR035

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	William K. Dustin (41985)	
2671	[at the public meetings] there was a provision that allowed a speaker selected by lot to cede his/her speaking opportunity to another person. This provided the opportunity for a group of people to enter the lottery with an agreed upon plan to cede their speaking opportunity to a particular individual. This gave that particular individual much greater odds of getting an opportunity to speak.	NEPA11
<b>Sender Name (Submission ID)</b>	William O O'Neill (57177)	
18674	Mining with sulfide in northern Minnesota would be a short-sighted action that would deteriorate the health of the ecology and quality of life in the area. Long after the resources are tapped, our children will still be dealing with the toxins left behind.	SO02
<b>Sender Name (Submission ID)</b>	William R Whiteside (18307)	
12226	And I'm very happy to see as we're looking forward the huge amounts of money -- billions of dollars -- that are going to be available to young people not only of the Iron Range, not only of Duluth, Northeastern Minnesota, but all of Minnesota to assure better educational opportunities, more solid infrastructure, better bridges, highways, hospitals. All the things that are necessary to a healthy and a good environment for people to live in.	SO10
<b>Sender Name (Submission ID)</b>	William Robbins (46971)	
10869	Without knowing the design operating pressure [of RO system], a decision maker would not know the following: How much wastewater will have to be stored or treated by secondary methods. The intended size and cost of the RO system, including pre-filtration equipment. The costs of long-term maintenance, monitoring and repair of the RO system. Without adequate maintenance, monitoring and repair, the cleaner water stream will soon cease to meet even the minimum water quality standards. There seems to have been a focus on controlling water effluent from tailings. This is important, to be sure, but the huge amount of water, both meteoric and ground source water from the open pit will likely dominate water flow which needs to be treated, so sizing of the RO system needs to accommodate large, erratic flows from storm runoff.	WR143
10870	All the following generate airborne dust: Removing overburden, mining, transportation, milling to reduce size preparatory to froth flotation, and tailings storage. I found little mention in the Supplemental Draft EIS of sources of dust, design of equipment and engineering processes to minimize dust generation and remediation procedures to contain and dispose of dust.	AIR07
10871	By planning for a 40-year period of mining, rather than a 20-year period, the removal rate of copper/nickel would need to be reduced. I understand that the up-front costs would be recovered more slowly, and this would generate reduced profits. Benefits to the long term economy, the people in the area, and the environment would result, and those uncertainties would decrease, issues associated with the long term needs of maintaining the site after active mining operations cease.	ALT01
<b>Sender Name (Submission ID)</b>	William Rudie (27497)	
10480	I appreciate the desire of those living in this area to have an opportunity for economic advancement if only for a limited time but the cost in permanent damage to this land and these waters is simply too high.	SO02
15271	The short form of the environmental impact statement could easily say "...the unique and delicate environment of Northern Minnesota will be damaged. Mining companies have been unable or unwilling to do what is required to prevent pollution caused by such operations in the past and there is no reason to think that this mine will be any different..."	PER35

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> William Simmons (35263)		
14091	We know that acid mine drainage and heavy metal contamination have polluted waters in all other places where sulfide ore mining has occurred. There is no reasonable expectation that a different outcome will be seen in Minnesota!	WR023
<b>Sender Name (Submission ID)</b> William Smith (54493)		
18084	According to the EIS, treatment will be needed at the mine site for a minimum of 200 years and at the plant site for a minimum of 500 years.(...) Clean water and a healthy environment is extremely important to me and my family and this project puts the St. Louis River watershed and in turn Lake Superior in grave danger.	WR115
<b>Sender Name (Submission ID)</b> William Wenger (9794)		
1385	We do need copper, and I would prefer it be mined under close government scrutiny in Minnesota, than in other parts of the world where such over site is missing.	ALT16
1386	I support the PolyMet mining plan assuming all safeguards to the environment are in place.	PD28
<b>Sender Name (Submission ID)</b> William Wilton (57215)		
17151	Research to recycle and reuse what has been already extracted can bring many jobs is just a start.	ALT09, ALT16
<b>Sender Name (Submission ID)</b> William Youman (58168)		
19888	...the mining should NOT go forth and be NOT approved due to wildlife, water quality and health issues for local residents and all of MN and the water resources.	GEN03
<b>Sender Name (Submission ID)</b> william youmans (46190)		
8162	We are concerned that the proposed PolyMet NorthMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water. We also believe that the PolyMet NorthMet Supplemental Draft Environmental Impact Statement ("PolyMet SDEIS") fails to adequately assess important risks to human health from the pollutants that would be released from this project. The absence of any professionals from the Minnesota Department of Health from the List of Preparers of the PolyMet SDEIS is particularly troubling.	HU03
8166	We would respectfully request that the PolyMet SDEIS be deemed inadequate due to unresolved concerns and insufficient assessment of health risks of the proposal. We would further request that, in revising the PolyMet SDEIS, a comprehensive Health Impact Assessment (HIA) be prepared under the guidance of the Minnesota Department of Health.	HU01
8170	Reviewing the PolyMet SDEIS, we believe that the information on mercury releases and the potential for mercury bioaccumulation is insufficient. The SDEIS does not disclose releases of mercury from seepage and does not analyze the effects of local deposition of pollutants or of hydrologic changes on mercury bioaccumulation. The SDEIS does not provide evidence to justify its claims about collection and containment of mercury and sulfates.	MERC20

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	william youmans (46190)	
8172	The PolyMet SDEIS also provides an insufficient analysis of the human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and carcinogenic effects of air emissions of diesel, asbestos-like fibers, nickel and other particulates, and of arsenic releases to water.	HU01
8182	The PolyMet SDEIS fails to analyze health risks to workers who would work on-site at the PolyMet mine or plant and fails to assess impacts of tailings groundwater seepage on nearby residential.	HU04
8184	The PolyMet SDEIS does not discuss impacts of exposures to vulnerable populations, such as infants, children, the elderly and persons who rely for subsistence on fish, wild rice or game species where pollutants may bioaccumulate.	HU01
8191	For these reasons, we would first request that the PolyMet SDEIS be revised to provide more complete information on mercury and sulfate emissions, deposition, and seepage from various sources, and the potential conversion to and bioaccumulation of methylmercury resulting from releases to the environment and hydrological changes from the proposed PolyMet project.	MERC02
8193	We would further request that the PolyMet SDEIS be determined inadequate pending supplementation to include a Health Impact Assessment, under the direction of the Minnesota Health Department.	HU01
8195	This Health Impact Assessment should include at least the following:1. Description of the known human health impacts of all pollutants in PolyMet’s air emissions and water discharges based on reliable toxicity and epidemiology data.2. Assessment of potential health impacts on residential wells from tailings seepage.3. Health impact assessment for on-site workers at both the PolyMet mine and plant.4. Assessment of cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River.5. Assessment of cumulative cancer and non-cancer risks from existing and additional sources of toxic chemicals, such as manganese, arsenic, lead and nickel, applying the most protective health risk analysis and an appropriate “lifetime” for exposure.6. Assessment of cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.	HU01
8214	Environmental Impact Statements, such as the PolyMet SDEIS, are required by the National Environmental Policy Act to contain analysis of impacts on human health. However, human health is subordinated to environmental impacts, is addressed in a piecemeal fashion, and there is no examination of the social determinants of health in the SDEIS. An HIA would integrate human health into the environmental review for the PolyMet NorthMet proposal, allow consideration of mitigation measures, and involve the community in planning for the project.	HU01
<b>Sender Name (Submission ID)</b>	Wintergreen (10185)	
367	This SDEIS is fundamentally inadequate. We’re told to rely on science to get it right. How can we if the agencies that are doing the science got it wrong? Let’s start over before we risk permanent damage to Minnesota’s lakes and streams and our nation’s most significant watershed.”	NEPA09

*Alphabetical by sender's first name*

**Comment ID    Comment Text** **Theme Codes**

**Sender Name (Submission ID)**    Wintergreen (10185)

1436 For 5 years PolyMet and various government agencies have studied the potential impacts that the nation’s most polluting & toxic industry might have on the nation’s most water-rich ecosystems. For 5 years, we’ve been told to trust the science. Don’t worry, they’ve told us, PolyMet's models will get it right. These models will determine whether a mine slated to operate for just 20 years is likely to pollute a headwaters of the Great Lakes watershed – the world’s most significant freshwater resource -- for hundreds of years if not forever. But now we learn that PolyMet's models got it wrong. They based the study on the wrong data. Their key parameter, stream flow volume, was incorrect. It’s simple: to determine how much pollution might travel from the mine site to Lake Superior, you measure the flowage of the headwater stream that connects the two – the Partridge River. But the scientists we are asked to trust did not measure the flowage. They simply guessed using computer models. They guessed wrong. New data shows that at least 3 times as much water flows down the Partridge River than was wrongly assumed in their study.

WR003

And here’s the kicker: For 5 years scientists with native American tribes who know the lay of the land better than any of us warned the agencies that PolyMet’s stream flow data was incorrect. The warnings of the tribal scientists were ignored. Why? Is it because much greater flowage might mean much greater pollution treatment costs than PolyMet is willing to pay? Is it because much great flowage might spread the pollution to a much larger area than PolyMet is willing to clean up? Is it because PolyMet’s proposed treatment plants will have to process larger volumes of water for hundreds of years than any financial assurance package could ever possible pay for? If the agencies that prepared this SDEIS could not get a simple key parameter correct – the amount of water currently flowing from the mine site – how can we possibly trust them to accurately predict the impact of this mine on our watershed hundreds of years from now -- when it will still be releasing toxins into our surface & groundwater.

**Sender Name (Submission ID)**    Wump (45062)

7542 Please reject the Polymet proposal as it would destroy the natural environment and compromise our waters. WR195

7543 This cost significantly outweighs any short term financial gain that may result from the copper mine business. SO01

**Sender Name (Submission ID)**    Wynter George (54182)

16433 I think building a mine is a bad idea because it will effect our environment. It will destroy our rivers and are boundaries water. WR111, WR115

**Sender Name (Submission ID)**    Xa Peter Vang (54209)

17648 The boundary water has been our largest wilderness since 1978 and it should be kept like that. The boundary waters is the icon behind Minnesota. WILD02

17649 I think we should not turn the boundary waters into a mine. I believe we should protect an environment that holds such beauty and serenity. LU04

17650 Sulfide mining will have a large impact to the environment; sulfide will turn into sulfuric acid and pollute the boundary water. WR001, WR111

17651 Pollution is a big problem all over the world and we all want to stop pollution, so why build something that will create more pollution. GEN01

**Sender Name (Submission ID)**    Yasmina Antcliff (11521)

2473 I am concerned about mercury levels in the water effecting our fish populations. We need more research. The SDEIS must be redone to check levels of mercury before the contaminated water comes in contact with waterways. MERC02

*Alphabetical by sender's first name*

<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b> Yasmina Antcliff (11521)		
2473	I am concerned about mercury levels in the water effecting our fish populations. We need more research. The SDEIS must be redone to check levels of mercury before the contaminated water comes in contact with waterways.	MERC02
9340	The Environmental Impact Statement doesn't tell us how much mercury pollution will be seeping out of the PolyMet tailings into surficial waters.	MERC20
<b>Sender Name (Submission ID)</b> yvonne eckstein (40197)		
6626	Please reject the PolyMet SDEIS and deny permits - like a permit to mine or a Section 404 wetlands permit -- that would allow this open-pit sulfide mine to harm Minnesota's fresh water for centuries, if not forever	PER35
6627	The opportunity to provide employment from the PolyMet project has strong appeal to some residents in the area--and jobs are a real concern BUT I think the short term benefits of these few jobs are vastly outweighed by the longer term and possibly permanent damage to health and environment of Minnesota residents	SO01
6629	I would ask the SDEIS analyze and study the potential impacts of some alternatives to an open pit design--like underground mining, putting liners under the permanent waste pile and the tailings pile	ALT01, ALT07
6630	PolyMet should be denied a permit to mine until the potential impacts of their proposal receive further study, and questions such as--will mercury loading in wetlands pose a risk to fish, to human and animal health; what are the actual costs of treating the water pollution from the permanent mine site waste rock and how long will PolyMet pay for it.	HU01
6631	The groundwater flow rates in SDEIS are inconsistent with "real world" data. What is PolyMet planning to do if their modeling predictions of no risk of water pollution from seepage both from the waste rock pile and the tailings pile do not hold true?	WR058, WR090, WR130
6632	I believe PolyMet's open pit mine plan is deeply flawed and my concern as an old Minnesota resident is the long term potential harm to the environment.--water and air pollution from the mine site, leaching of heavy metals into wetlands and lake drinking water, loss of public lands in Superior National Forest, destruction of irreplaceable wetlands	PD01
<b>Sender Name (Submission ID)</b> Zabelle Stodola (51512)		
3612	Whatever short-term economic gains might accrue regionally are simply not worth the long-term risks to the environment, to residents' health, and to the local tourist economy.	SO01
3613	The location of PolyMet's proposed NorthMet open pit mine is near important tributaries such as the Embarrass and Partridge Rivers. Therefore, the potential for acid mine drainage polluting the St. Louis River and, crucially, Lake Superior is significant.	WR113
3614	I am also opposed to the land exchange PolyMet has proposed which would zero out critical federal environmental protections such as the Weeks Act. Strip mining is not permitted on Weeks Act land, so special legislation removing environmental regulations would be necessary in order for PolyMet to move forward with the process. Protection provided by the Endangered Species Act and the National Environmental Policy Act would also be removed by the exchange. Shame! Further, if this project goes forward, we could see legislation in the future that would fast track a land exchange largely to benefit multinational mining companies.	LAN02
8763	The location of PolyMet's proposed NorthMet open pit mine is near important tributaries such as the Embarrass and Partridge Rivers... the potential for acid mine drainage polluting the St. Louis River and, crucially, Lake Superior is significant.	WR111

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Zabelle Stodola (51512)		
8765	I am also opposed to the land exchange...which would zero out critical federal environmental protections such as the Weeks Act. Strip mining is not permitted on Weeks Act land, so special legislation removing environmental regulations would be necessary in order for PolyMet to move forward with the process.	LAN02
10460	I would like to remind decision makers that in the past, the taconite industry put private economic gain over health and environmental protection and dumped waste into Lake Superior with disastrous consequences. It has taken years to deal with that mess.	PER35, WR023
16981	ven worse, the mine and associated facilities could be expanded later because other deposits exist in the surrounding area. Allowing construction of the NorthMet mine is an open door to further expansion.	CU02, CU04
16982	I understand that the Swiss corporate mining giant, Glencore, financially backs PolyMet and plans to sell the metals globally. This company, which owns approximately 25% of PolyMet, faces accusations of human rights abuses, environmental damage, and labor violations elsewhere.	PD23
<b>Sender Name (Submission ID)</b> Zac Cerwinske (54335)		
17313	I don't want the NorthMet Mining Project approved. I am worried about the environment, especially the loss of almost three fifths of our wetlands on the proposed site. Wetlands can decrease flooding, remove pollutants from water, recharge groundwater, protect shorelines, and provide habitat for wildlife.	WET24
17314	A partially filled or damaged wetland can't fully control floods, or help to improve water quality. A badly degraded wetland can lose its ability to remove excess sediments, metals, pesticides, and other pollutants. Wetlands have the ability to provide environmental benefits, but they are not indestructible. If we want wetlands to continue to perform their ecological functions, then we have to do our part to protect them, and this is why I don't want the NorthMet Mining Project to be approved.	WET24
<b>Sender Name (Submission ID)</b> Zac Kenoyer (54345)		
17677	I think [PolyMet] should find a way to minimize the Cultural resources effect They should change their plan so they do not bother the Ojibwe people. ... [find a way to build the mine without] inconveniencing them during construction and ruining some of their historic land. ... This will affect cultural resources because it will affect three of five historic places during construction, excavation, filling, etc...Also the 1854 treaty specifies that its reserved for fishing, hunting, and gathering on this land that would be affected.	CR01, CR05
17678	I think this mining will benefit Minnesota by creating jobs and getting us needed resources to use or export.	SO10
<b>Sender Name (Submission ID)</b> Zach Insheep (54190)		
17214	In the process of building the mine we would be destroying natural water filters, wetlands, peat.	WET24
17216	Worldwide we only have 0.024% of clean drinking water. We should not take our water for granted even if it is for copper.	SO01
<b>Sender Name (Submission ID)</b> Zach Kunkenborg (54193)		
17220	I mean we have one of the most pure watersheds up there, near the boundary waters and all, so why would you put a sulfuric mine up there and risk tainting the water?	WILD02

*Alphabetical by sender's first name*

Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b> Zach Kunkenborg (54193)		
17221	Also you get a lot of waste from this mining, think of all the waste this will create.	GEN01
<b>Sender Name (Submission ID)</b> Zachariah Mitteness (37824)		
16336	The polymet mine would jeopardize sacred manoomin (wild rice) which is almost exclusively here in Minnesota, Wisconsin, and parts of Canada.	VEG04
16337	...the polymet mine would have an effect on the serene beauty of the boundary waters.	WILD02
<b>Sender Name (Submission ID)</b> Zachary Behnke (54219)		
16293	PolyMet has many problems with their plan and environment impact statement. One of the major problem with PolyMet, is that they re-drew maps to disguise the fact that the runoff from the mine waste piles will enter the BWCA. Not only do they need to get new, ACCURATE maps from the DNR, but they also need to test how much waste will flow to the BWCA and how long it will take to get there.	WR080
16294	PolyMet has many problems with their plan and environment impact statement. The water will have toxic levels of metal at LEAST for 500 years. That will need constant treatment to make it safe. The MN DNR needs to get a water model that is capable of telling how many years it will take for the waste water metal levels to drop to the safe range.	WR036
16298	The environmental impact statement is a set up deal. It's a way for PolyMet and people to provide jobs for 20 years at max, for at LEAST 500 years of toxic pollution that will destroy not only BWCA, but also destroy any natural parts of Minnesota left. I hope you do not allow these scandals to ruin generations of the great outdoors, and take away from the Minnesota culture.	FIN10
<b>Sender Name (Submission ID)</b> Zachary Blankenheim (40036)		
6644	The moose is a truly iconic symbol of the Northwoods in Minnesota. The population is already in drastic decline with studies just getting underway to search as to the reasons why. Further decline in moose numbers may also impact the wolf population. Without the moose as a food source the wolf population will possibly rely more heavily on the white tail deer. If the numbers of white tail deer decline that will impact hunters and the amount of revenue that the area receives.	WI01
<b>Sender Name (Submission ID)</b> Zachary Johns (38609)		
14064	The Boundary Waters Canoe Area Wilderness, yes, our beloved Boundary Waters, is being threatened by the scourge of Sulfide Mining... many around the United States put our BWCA on the same level as Yellowstone, Yosemite or the Great Smokey Mountains. If we screw this up, it will be a national disaster.	WILD02
<b>Sender Name (Submission ID)</b> ZACHARY LORTON (3225)		
625	When mining in Areas near bodies of water it is inevitable that chemicals will reach and contaminate the water.	WR195
626	When sulfuric acid leaks out from the metal mines it contaminates not only the lakes but also the groundwater.	WR195
627	If the lakes were to be poisoned by chemicals, much like many city lakes, the fish population would surely decrease.	AQ05

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Comment ID	Comment Text	Theme Codes
<b>Sender Name (Submission ID)</b>	Zachary Nelson (47577)	
7141	At 200 years of clean up...the "jobs" created would be [short] term and would put Ely in the same position as Duluth in the 80s when it was dependent on mining and almost died when the industry fell through.	SO01
<b>Sender Name (Submission ID)</b>	Zack Heuring (47400)	
10263	We cannot afford the hundreds of years of harmful effects for maybe twenty years of jobs. This is a short term fix to a long term problem on The Range and will not serve our state or economy well in the future.	SO01
<b>Sender Name (Submission ID)</b>	Zdenek Mestenhauser (21373)	
979	I attended the public comment event on Jan. 28 in St. Paul. This event was rigged with an intent to skew the outcome. It did not allow equal time for true public comment vs. industry comments. The DNR set the event up to favor industry input by allowing the unions to submit requests to speak, when there was actually no intention to speak and provide public input. (...)The public hearings have to be repeated to allow true public input in order to be valid.	NEPA11
981	Value of clean water is not calculated for the next 500 years.(...) Climate change impact was not considered in the SDEIS. This needs to be analyzed to better understand the long impact such a mining operation would have. Several scenarios need to be considered. Raising sea levels will displace population; raising temperature will make Minnesota a better place to live. More severe and extreme storms will happen in the future. Calculations for 5,000 year storms need to be considered in the study. The water treatment plants have to be able to withstand those.	WR180, WR195
983	It is virtually impossible to design a system that will last 500 years. The plan has to address this topic to a great detail in order for experts and the public to assess if the design of such a facility would be adequate. The cost of such a facility has to be estimated.	SO04
984	PolyMET has to show facts to support this claim. Research shows that there is not a single sulfide mining operation that does not pollute. There is certainly not one operating in such a water rich ecosystem.	PD26
985	The proposed mining will increase the contamination of water with heavy metals including mercury. The SDEIS does not adequately estimate the impact of mercury contamination of fish downstream and including all the great lakes.(...) A tailings basin pond would need to have its water levels maintained through pumping to prevent contaminated water from over-topping the dams and entering the nearby Embarrass River. The SDEIS does not address in sufficient detail the amount of mercury and methylmercury released into the Embarrass River. The plan must address mercury pollution.	MERC02, MERC10, MERC11
987	There are no contingency plans outlined for expected accidents that occur at all mines of this type, mishaps such as pipeline spills, accidental releases, failures of water collection and treatment systems, tailings basin failure.(...) The mine would contain a complex network of miles of pipelines, carrying polluted and treated water to and from various locations. The mine plan does not describe what would happen if a break were to happen in a pipeline carrying high concentrations of toxic metals and sulfates in the Lake Superior watershed.	PD22
989	It is unfair to Minnesotans that this public comment period is the only chance for us to weigh in on whether the financial assurance is adequate. Given the uncertainty of the amount of anticipated and unanticipated water pollution and the required treatment period, how will Polymet and the DNR protect taxpayers centuries into the future? The financial consequences of this project will outlive everyone, every mining company, and even every governmental institution we know today. The PolyMet SDEIS gives no details of the amount and type of damage deposit adequate to cover the cost of treating water for countless generations into the future.	FIN01, FIN05, FIN10, FIN13

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<b>Comment ID</b>	<b>Comment Text</b>	<b>Theme Codes</b>
<b>Sender Name (Submission ID)</b>	Zdenek Mestenhauser (21373)	
14128	The USEPA gave the proposed mine its lowest ranking: Environmentally Unsatisfactory and Inadequate. Polymet's SDEIS clearly shows that after 20 years, there will be three enormous pits up to 696 feet deep full of water polluted with sulfuric acid and toxic heavy metals. Treatment at the mine site will be required for a minimum of 200 years and at the plant site for a minimum of 500 years. Mine tailings will be added to an existing tailings basin that is currently leaking polluted water	WR035, WR070, WR115
19899	Based on available information, pollution of clean water is inevitable... Financial assurances are insufficient! The cost of investigating pollution will be up to the public. It is not worth the risk. This technique has never been used successfully. Please do not gamble with our natural resources!	FIN10