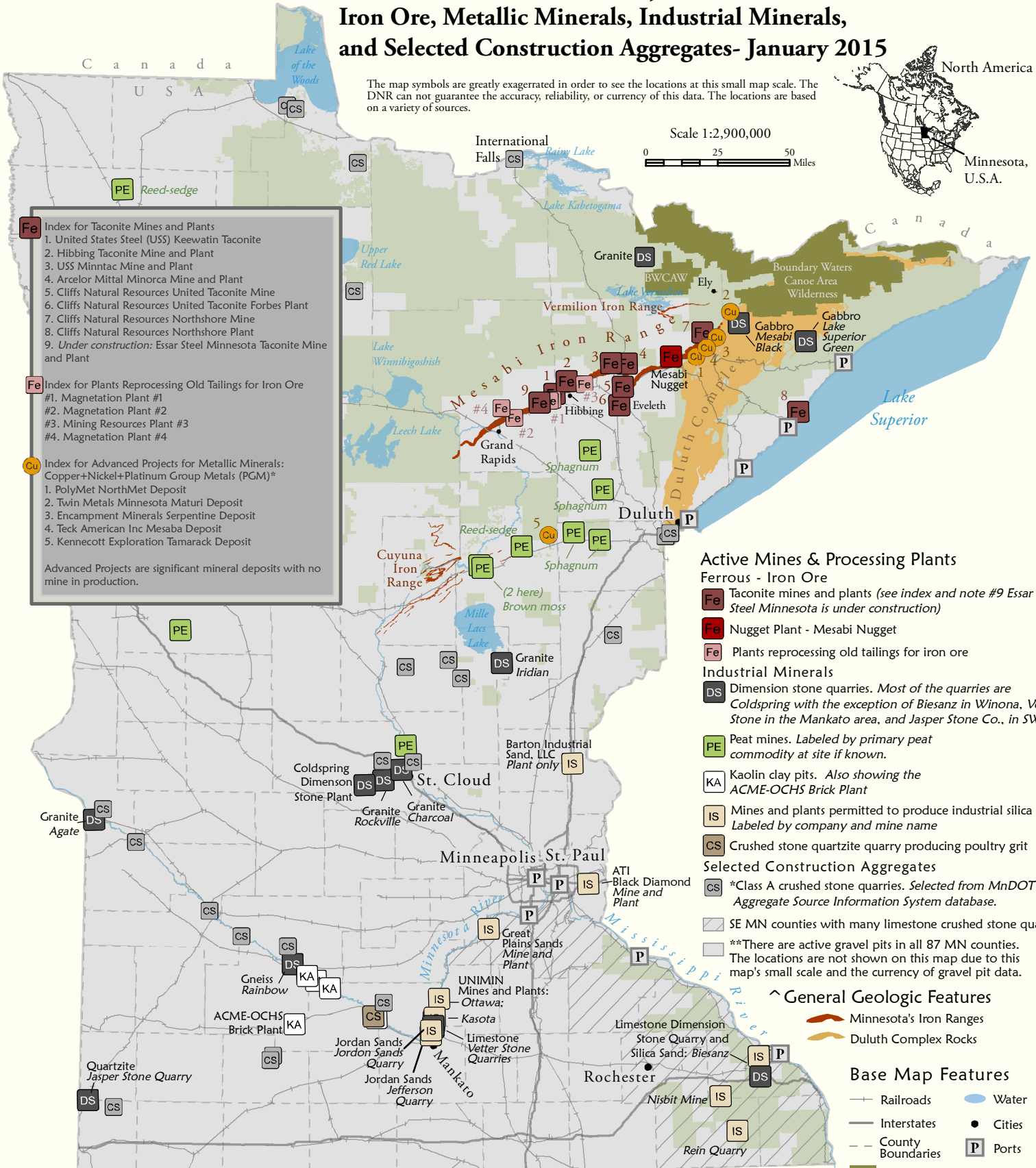




MINNESOTA MINERALS

Active Mines & Advanced Projects of Iron Ore, Metallic Minerals, Industrial Minerals, and Selected Construction Aggregates- January 2015

The map symbols are greatly exaggerated in order to see the locations at this small map scale. The DNR can not guarantee the accuracy, reliability, or currency of this data. The locations are based on a variety of sources.



Fe Index for Taconite Mines and Plants

1. United States Steel (USS) Keewatin Taconite
2. Hibbing Taconite Mine and Plant
3. USS Minntac Mine and Plant
4. Arcelor Mittal Minnoria Mine and Plant
5. Cliffs Natural Resources United Taconite Mine
6. Cliffs Natural Resources United Taconite Forbes Plant
7. Cliffs Natural Resources Northshore Mine
8. Cliffs Natural Resources Northshore Plant
9. *Under construction:* Essar Steel Minnesota Taconite Mine and Plant

Fe Index for Plants Reprocessing Old Tailings for Iron Ore

- #1. Magnetation Plant #1
- #2. Magnetation Plant #2
- #3. Mining Resources Plant #3
- #4. Magnetation Plant #4

Cu Index for Advanced Projects for Metallic Minerals: Copper+Nickel+Platinum Group Metals (PGM)*

1. PolyMet NorthMet Deposit
2. Twin Metals Minnesota Maturi Deposit
3. Encampment Minerals Serpentine Deposit
4. Teck American Inc Mesaba Deposit
5. Kennecott Exploration Tamarack Deposit

Advanced Projects are significant mineral deposits with no mine in production.

Active Mines & Processing Plants

Ferrous - Iron Ore

- Fe** Taconite mines and plants (see index and note #9 Essar Steel Minnesota is under construction)
- Fe** Nugget Plant - Mesabi Nugget
- Fe** Plants reprocessing old tailings for iron ore

Industrial Minerals

- DS** Dimension stone quarries. Most of the quarries are Coldspring with the exception of Biesanz in Winona, Vetter Stone in the Mankato area, and Jasper Stone Co., in SW MN.
- PE** Peat mines. Labeled by primary peat commodity at site if known.
- KA** Kaolin clay pits. Also showing the ACME-OCHS Brick Plant
- IS** Mines and plants permitted to produce industrial silica sand. Labeled by company and mine name
- CS** Crushed stone quartzite quarry producing poultry grit

Selected Construction Aggregates

- CS** *Class A crushed stone quarries. Selected from MnDOT's Aggregate Source Information System database.
- SE MN counties with many limestone crushed stone quarries
- **There are active gravel pits in all 87 MN counties. The locations are not shown on this map due to this map's small scale and the currency of gravel pit data.

General Geologic Features

- Minnesota's Iron Ranges
- Duluth Complex Rocks

Base Map Features

- Railroads
- Interstates
- County Boundaries
- BWCAW
- National & State Forests
- Water
- Cities
- Ports

*According to the Minnesota Department of Transportation (Mn/DOT) Class A quarries consist of basalt, diabase, gabbro, quartzite, or granite.**For more information about aggregate resources visit the DNR's aggregate resource mapping webpage or MnDOT's ASIS database webpage. ^Geologic features sourced from Minnesota Geological Survey's State Map Series S-21, 2011.