

Appendix A. Percentile Values for Major groupings of Element Values.

	USS-Coll. overall n=31 Co	USS-coll. lake n=21 Co	USS-coll. stream n=10 Co	MDNR-171 lake-stlo n=1,087 Co	MDNR-138-2 cook co. n=608 Co	MDNR-135 ely-south n=92 Co	MDNR-134 ely-north n=184 Co	MDNR-73-3 ely n=270 Co	MDNR-236 ec-mn n=618 Co	GSC overall n=4,704 Co	GSC-2181 lfalls n=510 Co	GSC-2180 quetico n=1,131 Co	GSC-2179 tbay-nip n=921 Co	GSC-2026 detail n=187 Co	GSC-1858 n of ifalls n=1,365 Co	GSC-1957 lotw n=590 Co	OGS-6057 sheband. n=1,383 Co
maximum	28	28	15	48	41	30	40	41	41	125	98	125	64	50	69	45	90
+99th %ile	-	-	-	39	33	30	34	33	25	33	47	37	36	28	29	19	30
+98th %ile	-	-	-	34	31	29	29	29	22	27	29	30	30	22	24	17	24
+95th %ile	-	-	-	21	27	26	23	23	19	21	24	24	22	16	18	16	18
+90th %ile	19	19	9	16	23	24	19	21	16	17	20	19	17	14	17	15	15
+75th %ile	-	-	-	11	16	15	15	15	12	14	16	15	13	10	13	13	10
+50th %ile	8	9	8	7	11	12	11	12	8	10	12	10	10	8	10	11	7
+25th %ile	-	-	-	5	7	9	9	8	6	7	9	8	6	6	8	8	5
minimum	2	2	3	0	0	5	4	2	1	-2	2	-2	-2	3	-2	-2	0

	USS-Coll. overall n=3,041 Ni	USS-coll. lake n=2,181 Ni	USS-coll. stream n=860 Ni	MDNR-171 lake-stlo n=1,087 Ni	MDNR-138-2 cook co. n=608 Ni	MDNR-135 ely-south n=92 Ni	MDNR-134 ely-north n=184 Ni	MDNR-73-3 ely n=270 Ni	MDNR-236 ec-mn n=618 Ni	GSC overall n=4,704 Ni	GSC-2181 lfalls n=510 Ni	GSC-2180 quetico n=1,131 Ni	GSC-2179 tbay-nip n=921 Ni	GSC-2026 detail n=187 Ni	GSC-1858 n of ifalls n=1,365 Ni	GSC-1957 lotw n=590 Ni	OGS-6057 sheband. n=1,383 Ni
maximum	180	180	88	121	86	61	106	280	49	199	182	156	199	131	108	98	209
+99th %ile	44	44	43	65	64	58	82	243	42	69	75	75	73	79	56	55	58
+98th %ile	40	40	38	55	60	56	59	180	39	56	57	62	56	67	52	50	52
+95th %ile	33	34	30	46	49	52	45	74	35	48	52	48	46	57	46	46	43
+90th %ile	28	29	24	35	37	36	40	61	32	42	46	41	37	44	42	43	37
+75th %ile	21	22	18	26	28	26	33	38	24	34	37	32	28	32	33	38	30
+50th %ile	15	16	13	19	20	21	22	25	16	24	29	22	21	23	24	31	23
+25th %ile	10	11	9	13	14	16	16	17	11	17	21	15	16	18	17	22	17
minimum	0	0	-1	2	2	6	8	0	2	-2	2	3	-2	7	-2	2	6

	USS-Coll. overall n=3,032 Cu	USS-coll. lake n=2,174 Cu	USS-coll. stream n=858 Cu	MDNR-171 lake-stlo n=1,087 Cu	MDNR-138-2 cook co. n=608 Cu	MDNR-135 ely-south n=91 Cu	MDNR-134 ely-north n=184 Cu	MDNR-73-3 ely n=270 Cu	MDNR-236 ec-mn n=618 Cu	GSC overall n=4,704 Cu	GSC-2181 lfalls n=510 Cu	GSC-2180 quetico n=1,131 Cu	GSC-2179 tbay-nip n=921 Cu	GSC-2026 detail n=187 Cu	GSC-1858 n of ifalls n=1,365 Cu	GSC-1957 lotw n=590 Cu	OGS-6057 sheband. n=1,383 Cu
maximum	295	295	236	219	550	51	52	305	78	1080	172	335	1080	190	181	256	664
+99th %ile	51	51	49	104	204	50	47	216	51	192	84	136	378	176	117	92	138
+98th %ile	42	43	37	81	158	39	44	176	45	144	78	108	263	139	102	79	125
+95th %ile	34	35	28	60	131	32	37	93	38	102	60	80	182	119	81	59	94
+90th %ile	28	29	22	49	99	30	35	76	30	77	53	63	132	88	66	51	76
+75th %ile	20	21	16	39	73	25	27	55	22	52	41	45	82	70	47	41	54
+50th %ile	13	15	11	28	50	18	21	36	14	36	31	32	54	50	34	32	37
+25th %ile	9	10	7	20	32	16	16	25	9	26	22	22	36	40	26	25	27
minimum	0	0	0	5	7	9	9	11	3	-2	2	-2	2	9	3	2	1

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	USS-Coll. overall n=3,040 <b>Zn</b>	USS-coll. lake n=2,179 <b>Zn</b>	USS-coll. stream n=861 <b>Zn</b>	MDNR-171 lake-stlo n=1,086 <b>Zn</b>	MDNR-138-2 cook co. n=608 <b>Zn</b>	MDNR-135 ely-south n=92 <b>Zn</b>	MDNR-134 ely-north n=184 <b>Zn</b>	MDNR-73-3 ely n=270 <b>Zn</b>	MDNR-236 ec-mn n=618 <b>Zn</b>	GSC overall n=4,704 <b>Zn</b>	GSC-2181 lfalls n=510 <b>Zn</b>	GSC-2180 quetico n=1,131 <b>Zn</b>	GSC-2179 tbay-nip n=921 <b>Zn</b>	GSC-2026 detail n=187 <b>Zn</b>	GSC-1858 n of ifalls n=1,365 <b>Zn</b>	GSC-1957 lotw n=590 <b>Zn</b>	OGS-6057 sheband. n=1,383 <b>Zn</b>
maximum	745	745	295	552	528	159	119	265	356	2400	330	2400	925	382	625	673	254
+99th %ile	254	259	179	231	220	157	111	218	310	236	264	198	284	247	190	179	164
+98th %ile	220	235	150	205	178	139	108	193	274	200	230	177	248	212	167	161	144
+95th %ile	170	185	123	173	158	120	98	153	190	164	192	154	194	192	148	149	129
+90th %ile	140	150	102	141	142	117	91	130	167	142	162	132	158	165	137	138	113
+75th %ile	95	104	70	106	117	93	77	102	108	120	120	110	124	138	121	127	92
+50th %ile	61	68	50	78	88	73	67	77	61	100	92	90	96	110	105	111	75
+25th %ile	40	43	33	57	66	60	55	53	40	79	70	71	76	89	87	94	60
minimum	2	2	2	5	26	25	17	10	4	0	18	11	10	26	22	23	13

	USS-Coll. overall n=3,041 <b>Pb</b>	USS-coll. lake n=2,180 <b>Pb</b>	USS-coll. stream n=861 <b>Pb</b>	MDNR-171 lake-stlo n=1,086 <b>Pb</b>	MDNR-138-2 cook co. n=608 <b>Pb</b>	MDNR-135 ely-south n=92 <b>Pb</b>	MDNR-134 ely-north n=183 <b>Pb</b>	MDNR-73-3 ely n=270 <b>Pb</b>	MDNR-236 ec-mn n=618 <b>Pb</b>	GSC overall n=4,704 <b>Pb</b>	GSC-2181 lfalls n=510 <b>Pb</b>	GSC-2180 quetico n=1,131 <b>Pb</b>	GSC-2179 tbay-nip n=921 <b>Pb</b>	GSC-2026 detail n=187 <b>Pb</b>	GSC-1858 n of ifalls n=1,365 <b>Pb</b>	GSC-1957 lotw n=590 <b>Pb</b>	OGS-6057 sheband. n=1,383 <b>Pb</b>
maximum	810	810	500	70	35	16	15	35	40	166	27	28	166	15	35	136	36
+99th %ile	52	51	52	28	25	13	14	23	40	25	15	17	16	14	26	30	13
+98th %ile	36	36	33	20	20	13	13	20	40	21	14	14	15	12	24	26	11
+95th %ile	25	25	24	17	20	13	12	20	30	18	10	11	11	10	20	23	9
+90th %ile	19	19	18	13	20	11	10	15	20	15	9	9	8	8	18	20	8
+75th %ile	14	14	14	10	10	9	8	15	15	10	7	7	6	6	14	16	6
+50th %ile	10	10	9	9	10	6	6	10	10	6	4	4	3	5	10	12	4
+25th %ile	7	7	6	6	5	4	4	5	0	3	3	2	2	4	6	8	3
minimum	1	1	1	0	0	1	1	0	0	-2	-2	-2	-2	-2	-2	-2	1

	USS-Coll. overall n=2,412 <b>Ag</b>	USS-coll. lake n=1,802 <b>Ag</b>	USS-coll. stream n=610 <b>Ag</b>	MDNR-171 lake-stlo n= na <b>Ag</b>	MDNR-138-2 cook co. n= na <b>Ag</b>	MDNR-135 ely-south n= na <b>Ag</b>	MDNR-134 ely-north n= na <b>Ag</b>	MDNR-73-3 ely n=267 <b>Ag</b>	MDNR-236 ec-mn n=618 <b>Ag</b>	GSC overall n=4,704 <b>Ag</b>	GSC-2181 lfalls n=510 <b>Ag</b>	GSC-2180 quetico n=1,131 <b>Ag</b>	GSC-2179 tbay-nip n=921 <b>Ag</b>	GSC-2026 detail n=187 <b>Ag</b>	GSC-1858 n of ifalls n=1,365 <b>Ag</b>	GSC-1957 lotw n=590 <b>Ag</b>	OGS-6057 sheband. n=1,384 <b>Ag</b>
maximum	13.0	13.0	2.9	-	-	-	-	0.5	9	3.9	0.2	1.0	2.0	3.9	1.0	1.3	0.8
+99th %ile	1.0	1.0	0.4	-	-	-	-	0.5	7	0.5	0.2	0.2	0.7	0.4	0.5	0.3	0.4
+98th %ile	0.5	0.7	0.3	-	-	-	-	0.1	6	0.4	0.2	0.2	0.4	0.3	0.5	0.2	0.3
+95th %ile	0.3	0.3	0.2	-	-	-	-	0.1	3	0.2	-0.2	0.0	0.2	0.3	0.4	0.2	0.3
+90th %ile	0.2	0.2	0.2	-	-	-	-	0.0	1	0.2	-0.2	-0.2	-0.2	0.2	0.3	-0.2	0.2
+75th %ile	0.2	0.2	0.2	-	-	-	-	0.0	0	-0.2	-0.2	-0.2	-0.2	0.2	-0.2	-0.2	0.2
+50th %ile	0.2	0.2	0.2	-	-	-	-	0.0	0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.1
+25th %ile	0.2	0.2	0.2	-	-	-	-	0.0	0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.1
minimum	0.2	0.2	0.2	-	-	-	-	0.0	0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.0

**Appendix A. Percentile Values for Major groupings of Element Values.**

	USS-Coll. overall n=2,622 <b>As</b>	USS-coll. lake n=1,943 <b>As</b>	USS-coll. stream n=679 <b>As</b>	MDNR-171 lake-stlo n=1,082 <b>As</b>	MDNR-138-2 cook co. n=609 <b>As</b>	MDNR-135 ely-south n=92 <b>As</b>	MDNR-134 ely-north n=184 <b>As</b>	MDNR-73-3 ely n=270 <b>As</b>	MDNR-236 ec-mn n=618 <b>As</b>	GSC overall n=4,704 <b>As</b>	GSC-2181 lfalls n=510 <b>As</b>	GSC-2180 quetico n=1,131 <b>As</b>	GSC-2179 tbay-nip n=921 <b>As</b>	GSC-2026 detail n=187 <b>As</b>	GSC-1858 n of ifalls n=1,365 <b>As</b>	GSC-1957 lotw n=590 <b>As</b>	OGS-6057 sheband. n= na <b>As</b>
maximum	535	535	400	20.2	20.0	12.0	13.9	8	78	105	48	68	22	56	105	59	-
+99th %ile	57	57	46	13.0	11.6	10.5	6.8	6	43	14	12	14	8	53	7	11	-
+98th %ile	44	47	35	11.6	9.8	10.1	5.7	5	33	8	6	9	6	42	5	9	-
+95th %ile	25	27	20	8.3	6.0	7.0	4.9	4	23	4	2	4	4	21	4	6	-
+90th %ile	18	20	13	6.4	4.0	5.8	3.9	3	16	3	1	2	2	10	3	4	-
+75th %ile	11	12	9	3.7	2.0	4.2	1.8	2	11	2	-1	1	1	3	2	3	-
+50th %ile	7	7	6	2.0	1.2	3.0	1.2	1	6	1	-1	-1	-1	1	1	2	-
+25th %ile	4	4	4	1.2	0.8	1.6	0.9	0	2	-1	-1	-1	-1	-1	-1	1	-
minimum	0	0	1	0.1	0.2	0.4	0.3	0	0	-1	-1	-1	-1	-1	-1	-1	-

  

	USS-Coll. overall n=3,024 <b>U308</b>	USS-coll. lake n=2,166 <b>U308</b>	USS-coll. stream n=858 <b>U308</b>	MDNR-171 lake-stlo n= na <b>U</b>	MDNR-138-2 cook co. n= na <b>U</b>	MDNR-135 ely-south n=10 <b>U</b>	MDNR-134 ely-north n=12 <b>U</b>	MDNR-73-3 ely n=28 <b>U</b>	MDNR-236 ec-mn n=618 <b>U</b>	GSC overall n=4,704 <b>U</b>	GSC-2181 lfalls n=510 <b>U</b>	GSC-2180 quetico n=1,131 <b>U</b>	GSC-2179 tbay-nip n=921 <b>U</b>	GSC-2026 detail n= na <b>U</b>	GSC-1858 n of ifalls n=1,365 <b>U</b>	GSC-1957 lotw n=590 <b>U</b>	OGS-6057 sheband. n=1,383 <b>U</b>
maximum	170.0	32.0	170.0	-	-	2.5	7.5	3.7	42.1	169.0	33.2	91.7	105.0	-	169.0	71.5	77.2
+99th %ile	6.0	6.0	6.9	-	-	-	-	-	11.4	39.4	18.3	43.6	30.0	-	51.9	21.2	29.9
+98th %ile	4.0	4.0	4.0	-	-	-	-	-	3.0	28.0	14.7	29.8	24.9	-	38.9	18.5	23.6
+95th %ile	2.3	2.0	3.0	-	-	-	-	-	2.5	17.0	10.4	19.0	13.7	-	23.5	12.0	17.2
+90th %ile	2.0	2.0	2.0	-	-	2.3	6.6	3.5	2.2	10.2	6.7	13.7	8.6	-	12.0	8.7	12.6
+75th %ile	1.0	1.0	1.0	-	-	1.8	5.9	2.4	1.8	4.9	3.8	6.2	4.2	-	5.0	5.8	6.8
+50th %ile	0.6	0.6	0.6	-	-	1.8	5.0	2.2	1.3	2.8	2.7	2.8	1.9	-	3.0	4.4	2.5
+25th %ile	0.2	0.2	0.2	-	-	1.1	3.5	1.5	1.0	1.7	2.1	1.7	1.1	-	2.0	3.2	1.1
minimum	0.0	0.0	0.0	-	-	0.9	1.6	0.7	0.2	-0.2	0.4	0.4	-0.2	-	0.0	0.9	0.1

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	USS-Coll. overall n= na Mn	USS-coll. lake n= na Mn	USS-coll. stream n= na Mn	MDNR-171 lake-stlo n=1,087 Mn	MDNR-138-2 cook co. n=608 Mn	MDNR-135 ely-south n=91 Mn	MDNR-134 ely-north n=184 Mn	MDNR-73-3 ely n=270 Mn	MDNR-236 ec-mn n=618 Mn	GSC overall n=4,704 Mn	GSC-2181 lfalls n=510 Mn	GSC-2180 quetico n=1,131 Mn	GSC-2179 tbay-nip n=921 Mn	GSC-2026 detail n=187 Mn	GSC-1858 n of ifalls n=1,365 Mn	GSC-1957 lotw n=590 Mn	OGS-6057 sheband. n=1,383 Mn
maximum	-	-	-	9500	1100	5000	6000	10000	34000	38000	19000	17000	38000	3380	17160	9698	7998
+99th %ile	-	-	-	2403	575	5000	2369	6127	14069	2945	3792	3605	1790	2552	3067	2415	2526
+98th %ile	-	-	-	2040	540	3171	1697	3686	10720	2047	2041	2620	1400	1942	2124	1231	1726
+95th %ile	-	-	-	1024	451	1879	1022	1790	5018	1049	1028	1550	820	745	982	856	1044
+90th %ile	-	-	-	629	387	1557	683	1192	2772	740	766	950	625	567	734	664	702
+75th %ile	-	-	-	331	260	835	370	819	1091	485	510	528	390	368	500	515	423
+50th %ile	-	-	-	158	165	321	249	460	350	310	368	345	220	218	319	325	262
+25th %ile	-	-	-	83	88	225	190	236	150	186	230	213	120	130	199	222	145
minimum	-	-	-	6	15	65	30	30	20	0	40	35	20	37	0	35	5

	USS-Coll. overall n= na Fe	USS-coll. lake n= na Fe	USS-coll. stream n= na Fe	MDNR-171 lake-stlo n=1,087 Fe	MDNR-138-2 cook co. n=608 Fe	MDNR-135 ely-south n=92 Fe	MDNR-134 ely-north n=183 Fe	MDNR-73-3 ely n=270 Fe	MDNR-236 ec-mn n=618 Fe	GSC overall n=4,704 Fe	GSC-2181 lfalls n=510 Fe	GSC-2180 quetico n=1,131 Fe	GSC-2179 tbay-nip n=921 Fe	GSC-2026 detail n=187 Fe	GSC-1858 n of ifalls n=1,365 Fe	GSC-1957 lotw n=590 Fe	OGS-6057 sheband. n=1,359 Fe
maximum	-	-	-	26.90	7.80	17.48	5.24	9.00	24.10	20.00	18.20	20.00	17.00	9.80	13.09	8.68	9.42
+99th %ile	-	-	-	10.87	5.94	16.80	3.69	8.06	19.40	8.60	8.12	12.14	9.22	8.14	5.53	5.10	7.93
+98th %ile	-	-	-	9.22	4.62	15.97	2.94	7.31	18.20	6.50	5.03	8.80	6.83	7.46	4.50	4.37	6.57
+95th %ile	-	-	-	5.16	3.77	11.10	1.91	6.06	14.62	4.50	3.65	6.28	4.40	6.38	3.95	3.55	4.73
+90th %ile	-	-	-	2.82	3.17	7.18	1.52	3.60	10.43	3.60	3.25	4.65	3.40	4.12	5.54	3.33	3.42
+75th %ile	-	-	-	1.49	2.20	2.68	1.17	2.14	6.50	2.75	2.49	2.98	2.25	2.83	2.82	2.88	2.21
+50th %ile	-	-	-	0.88	1.31	1.10	0.91	1.38	2.00	1.81	1.80	1.95	1.40	1.66	1.87	2.20	1.47
+25th %ile	-	-	-	0.47	0.60	0.64	0.67	0.93	1.00	1.20	1.20	1.20	0.80	1.13	1.28	1.57	0.90
minimum	-	-	-	0.00	0.02	0.20	0.06	0.18	0.13	0.10	0.20	0.35	0.10	0.33	0.29	0.22	0.01

	USS-Coll. overall n= na LOI	USS-coll. lake n= na LOI	USS-coll. stream n= na LOI	MDNR-171 lake-stlo n=1,085 LOI	MDNR-138-2 cook co. n=608 LOI	MDNR-135 ely-south n=92 LOI	MDNR-134 ely-north n=184 LOI	MDNR-73-3 ely n=270 LOI	MDNR-236 ec-mn n=618 LOI	GSC overall n=4,704 LOI	GSC-2181 lfalls n=510 LOI	GSC-2180 quetico n=1,131 LOI	GSC-2179 tbay-nip n=921 LOI	GSC-2026 detail n=187 LOI	GSC-1858 n of ifalls n=1,365 LOI	GSC-1957 lotw n=590 LOI	OGS-6057 sheband. n=1,385 LOI
maximum	-	-	-	90.49	81.49	76.00	67.50	85.16	82.80	87.20	84.60	80.20	87.20	77.00	86.20	84.60	88.38
+99th %ile	-	-	-	81.41	67.92	75.73	65.44	78.53	79.00	74.80	77.66	67.94	76.36	75.00	74.00	75.48	73.52
+98th %ile	-	-	-	76.92	66.28	75.54	61.57	75.25	77.20	69.70	70.69	65.60	73.52	71.34	70.32	70.23	70.91
+95th %ile	-	-	-	73.54	59.86	74.62	55.89	70.61	73.12	63.40	60.00	60.80	64.40	62.48	64.48	63.92	65.78
+90th %ile	-	-	-	68.07	56.37	70.80	52.58	66.76	69.83	57.40	53.44	55.60	59.80	57.28	58.52	56.61	61.63
+75th %ile	-	-	-	57.70	46.62	65.05	46.40	55.55	62.30	46.80	40.10	44.00	51.00	48.10	46.90	43.08	53.06
+50th %ile	-	-	-	43.65	39.11	49.90	38.55	42.52	50.90	34.60	23.90	34.00	42.00	39.00	33.00	28.75	44.00
+25th %ile	-	-	-	34.72	31.63	30.50	26.70	28.03	39.60	20.00	10.40	21.40	33.60	32.40	18.40	18.13	34.33
minimum	-	-	-	4.28	4.73	13.00	5.10	15.49	0.40	0.00	1.00	1.00	0.00	1.00	0.00	2.00	4.36