

**APPENDIX 15-J
SEDIMENT QUALITY DATA, 2012 AND HISTORICAL**

Appendix 15-J1. Sediment Quality Data for Streams in the KSM Project Area, November/December 2012

Sample ID	DETECTION LIMITS	MC-2 REP1	MC-2 REP2	MC-2 REP3	SUNR1 REP1	SUNR1 REP2	SUNR1 REP3	GC1 REP1	GC1 REP2	GC1 REP3	SC1 REP1	SC1 REP2	SC1 REP3	SC1 REP4	SC1 REP5	SC2 REP1
Date Sampled	ALL SAMPLES	30-NOV-12	30-NOV-12	30-NOV-12	29-NOV-12	29-NOV-12	29-NOV-12	30-NOV-12	30-NOV-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12
ALS Sample ID		L1244734-38	L1244734-39	L1244734-40	L1244734-18	L1244734-19	L1244734-20	L1246043-17	L1246043-18	L1246043-19	L1246043-8	L1246043-9	L1246043-10	L1246043-11	L1246043-12	L1246043-14
Particle Size																
% Gravel (>2 mm)	0.10	42.0	20.3	10.4	1.95	20.2	3.24	16.7	43.2	49.9	4.42	24.0	<0.10	2.40	26.8	24.6
% Sand (2.0mm - 0.063 mm)	0.10	45.6	70.1	88.2	97.0	78.7	96.2	81.2	55.8	48.9	78.1	70.8	62.3	90.7	68.6	71.5
% Silt (0.063 mm - 4µm)	0.10	11.7	9.04	1.11	0.94	1.06	0.54	1.75	0.93	1.06	14.4	4.34	35.4	6.01	3.73	3.62
% Clay (<4 µm)	0.10	0.74	0.57	0.27	0.12	<0.10	<0.10	0.36	0.13	0.12	3.07	0.81	2.24	0.86	0.98	0.32
Physical Tests																
Moisture (%)	0.25	20.2	12.3	16.7	21.2	18.1	17.4	12.4	23.3	12.6	29.8	23.5	30.0	36.3	16.9	17.2
pH (1:2 soil:water)	0.10	8.53	8.65	8.53	8.14	8.16	7.94	8.20	8.38	8.47	7.99	7.82	8.23	8.05	7.75	7.97
Nutrients																
Total Nitrogen by LECO (%)	0.020	0.034	0.037	0.029	<0.020	0.023	0.026	0.024	0.025	0.024	0.086	0.033	0.027	0.049	0.032	0.032
Available Phosphate-P	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.7
Cyanides																
Cyanide, Total	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Organic / Inorganic Carbon																
CaCO3 Equivalent (%)	0.80	2.91	2.97	2.67	<0.80	<0.80	<0.80	3.81	3.10	3.70	2.33	0.99	4.94	4.13	3.07	2.40
Inorganic Carbon (%)	0.10	0.35	0.36	0.32	<0.10	<0.10	<0.10	0.46	0.37	0.44	0.28	0.12	0.59	0.50	0.37	0.29
Total Carbon by Combustion (%)	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.6	0.6	0.6	1.3	0.3	0.8	1.1	0.6	0.6
Total Organic Carbon (%)	0.10	0.20	0.18	0.17	0.11	0.10	0.11	0.17	0.21	0.14	1.05	0.23	0.24	0.58	0.26	0.28
Metals																
Aluminum (Al)	50	12500	10800	11700	7940	9220	9590	16100	15800	16900	15400	15400	11900	15400	15000	12600
Antimony (Sb)	0.10	0.91	0.84	1.56	<0.10	0.12	0.10	0.46	0.52	0.49	6.29	9.70	8.30	6.01	3.20	1.51
Arsenic (As)	0.050	12.2	10.7	12.5	1.04	2.14	1.23	4.25	7.91	5.63	60.4	74.9	90.3	42.4	34.0	12.5
Barium (Ba)	0.50	130	100	90.7	66.5	71.4	140	21.6	26.0	25.7	93.2	57.7	112	97.4	80.7	92.6
Beryllium (Be)	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.37	0.41	0.36	0.28	0.23	0.27	0.25	0.21	0.25
Bismuth (Bi)	0.20	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.88	<0.20	<0.20	<0.20	0.22
Cadmium (Cd)	0.050	1.20	1.18	0.561	0.094	0.094	0.098	0.166	0.183	0.146	0.957	0.771	0.926	0.894	0.643	0.739
Calcium (Ca)	50	13400	12500	15000	5570	5270	5400	22500	18100	23400	13900	7710	25700	19000	14800	11500
Chromium (Cr)	0.50	18.3	17.3	17.0	18.3	20.5	20.2	31.0	30.4	34.2	23.2	29.0	14.0	24.0	26.4	16.0
Cobalt (Co)	0.10	11.1	8.05	10.1	6.52	7.67	6.94	11.8	12.5	12.6	15.2	17.2	14.1	13.6	14.5	10.4
Copper (Cu)	0.50	55.9	44.1	74.4	22.4	27.8	26.0	57.5	65.1	67.4	116	674	168	93.2	100	109
Iron (Fe)	50	28000	23800	27400	15700	18900	17000	38500	39800	38800	40200	47100	39400	40300	34900	33700
Lead (Pb)	0.50	6.72	4.96	6.00	4.13	4.47	5.98	5.44	6.83	6.09	22.9	20.8	26.2	23.6	10.7	8.83
Lithium (Li)	5.0	6.5	6.1	6.8	5.8	6.8	6.7	15.9	15.2	16.7	17.8	18.2	15.0	17.1	16.9	11.2
Magnesium (Mg)	20	9720	8580	9340	6050	7180	7060	12700	12300	13300	12400	12700	9320	12800	12700	9510
Manganese (Mn)	1.0	633	610	658	256	286	284	697	650	775	1260	1230	1200	1170	1350	586
Mercury (Hg)	0.0050	0.0188	0.0233	0.0188	<0.0050	<0.0050	<0.0050	0.0262	0.0246	0.0272	0.112	0.140	0.222	0.102	0.0592	0.0816
Molybdenum (Mo)	0.50	1.82	1.73	3.00	<0.50	<0.50	1.44	0.78	0.92	0.93	1.75	2.05	2.22	1.49	1.17	4.53
Nickel (Ni)	0.50	14.6	11.7	15.3	11.5	15.0	14.2	14.0	15.3	16.1	19.0	18.3	13.6	19.1	16.8	13.6
Phosphorus (P)	50	1010	1230	990	661	705	681	1410	1420	1460	1380	1350	1460	1560	1140	996
Potassium (K)	100	2370	2090	2120	1010	1050	1160	880	830	870	830	680	790	790	620	1100
Selenium (Se)	0.20	1.32	1.02	1.25	<0.20	<0.20	<0.20	0.37	0.60	0.48	1.06	1.22	2.05	0.69	0.40	2.76
Silver (Ag)	0.10	0.28	0.30	0.44	<0.10	<0.10	0.21	0.10	0.14	0.12	0.64	2.06	0.89	0.42	0.27	0.34
Sodium (Na)	100	150	110	<100	170	200	220	<100	<100	<100	<100	<100	<100	<100	<100	<100
Strontium (Sr)	0.50	76.9	62.8	65.7	31.4	28.9	30.8	102	98.9	143	73.0	37.2	89.8	98.1	71.6	55.1
Thallium (Tl)	0.050	0.115	0.109	0.096	<0.050	0.053	0.053	0.058	0.060	0.059	0.105	0.727	0.116	0.084	0.117	0.074
Tin (Sn)	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	1.0	739	465	375	561	671	633	707	1010	852	335	412	542	347	398	575
Uranium (U)	0.050	0.466	2.28	0.493	0.479	0.427	0.478	0.423	0.465	0.495	0.233	0.226	0.259	0.206	0.210	0.401
Vanadium (V)	0.20	59.7	58.6	54.7	38.9	48.0	41.9	113	115	116	74.8	79.5	58.2	75.1	79.3	61.0
Zinc (Zn)	1.0	116	100	81.0	31.6	34.1	35.0	61.4	64.9	64.4	147	140	123	146	108	103

All values in µg/g dry weight, unless otherwise noted

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Sample ID	DETECTION LIMITS	SC2 REP2	SC2 REP3	SC3 REP1	SC3 REP2	SC3 REP3	SC3 REP4	SC3 REP5	SCT REP1	SCT REP2	SCT REP3	SCT REP4	SCT REP5	SNO1 REP1	SNO1 REP2	SNO1 REP3
Date Sampled	ALL SAMPLES	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	02-DEC-12	03-DEC-12	03-DEC-12	03-DEC-12
ALS Sample ID		L1246043-15	L1246043-16	L1246043-21	L1246043-22	L1246043-23	L1246043-24	L1246043-25	L1246043-2	L1246043-3	L1246043-4	L1246043-5	L1246043-6	L1246043-48	L1246043-49	L1246043-50
Particle Size																
% Gravel (>2 mm)	0.10	18.6	21.3	33.2	10.2	14.6	28.1	16.2	4.09	2.42	3.97	27.0	0.65	44.5	54.3	34.7
% Sand (2.0mm - 0.063 mm)	0.10	78.6	75.3	65.7	81.8	82.7	70.3	81.2	50.5	52.9	55.1	48.4	49.1	54.8	45.2	63.2
% Silt (0.063 mm - 4µm)	0.10	2.48	3.08	0.93	7.56	2.46	1.50	2.33	43.1	42.6	39.5	23.5	47.8	0.59	0.35	1.87
% Clay (<4 µm)	0.10	0.26	0.35	0.10	0.45	0.22	0.14	0.27	2.38	2.03	1.49	1.09	2.46	0.13	0.13	0.24
Physical Tests																
Moisture (%)	0.25	22.0	23.5	21.6	17.7	21.7	20.8	20.6	20.9	28.3	20.9	21.8	20.7	21.3	17.3	18.1
pH (1:2 soil:water)	0.10	7.75	7.67	7.72	8.16	8.15	8.09	8.17	8.00	8.11	8.21	8.17	8.18	8.05	7.95	7.88
Nutrients																
Total Nitrogen by LECO (%)	0.020	0.030	0.032	0.027	0.035	0.029	0.027	0.037	0.022	0.022	0.023	0.024	0.022	0.065	0.067	0.064
Available Phosphate-P	2.0	2.2	<2.0	2.8	2.6	3.3	2.9	3.2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.3
Cyanides																
Cyanide, Total	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Organic / Inorganic Carbon																
CaCO3 Equivalent (%)	0.80	2.34	1.66	1.37	1.75	1.97	1.37	1.71	3.21	3.71	2.80	3.05	3.76	<0.80	<0.80	<0.80
Inorganic Carbon (%)	0.10	0.28	0.20	0.16	0.21	0.24	0.16	0.21	0.38	0.45	0.34	0.37	0.45	<0.10	<0.10	<0.10
Total Carbon by Combustion (%)	0.1	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.6	0.6	0.5	0.6	0.6	0.4	0.4	0.3
Total Organic Carbon (%)	0.10	0.21	0.27	0.21	0.30	0.18	0.23	0.23	0.17	0.13	0.20	0.22	0.14	0.38	0.39	0.32
Metals																
Aluminum (Al)	50	12400	12500	12900	13200	12600	12900	13200	11200	11300	10900	10800	11100	15700	16100	14200
Antimony (Sb)	0.10	3.47	2.36	1.91	2.70	1.83	1.73	4.72	1.02	1.02	0.91	1.15	0.97	1.05	1.28	1.17
Arsenic (As)	0.050	16.2	16.5	20.0	17.8	16.1	12.6	13.0	17.0	16.0	17.4	13.9	17.9	9.44	8.53	9.92
Barium (Ba)	0.50	121	72.7	77.7	99.9	89.4	78.7	75.4	151	142	138	117	138	50.3	38.4	53.4
Beryllium (Be)	0.20	0.24	0.26	0.24	0.25	0.26	0.22	0.23	<0.20	<0.20	<0.20	<0.20	<0.20	0.40	0.33	0.40
Bismuth (Bi)	0.20	0.40	0.28	<0.20	<0.20	<0.20	<0.20	<0.20	0.33	0.28	0.26	0.23	0.31	<0.20	<0.20	<0.20
Cadmium (Cd)	0.050	0.868	0.851	0.999	0.888	0.958	0.959	1.17	0.645	0.585	0.513	0.533	0.725	0.184	0.173	0.197
Calcium (Ca)	50	12800	10200	11700	11300	11000	9700	13900	17500	17600	16800	16700	18300	3030	2330	2840
Chromium (Cr)	0.50	15.4	16.3	19.0	21.4	20.5	21.0	21.7	14.4	14.6	15.4	15.2	14.3	71.6	73.6	63.3
Cobalt (Co)	0.10	9.89	12.7	12.0	11.0	10.7	9.91	18.2	12.9	13.1	12.2	11.4	13.0	14.1	13.2	14.5
Copper (Cu)	0.50	109	130	100	94.0	98.3	99.9	142	70.7	66.2	61.9	54.1	74.7	36.8	35.1	35.5
Iron (Fe)	50	29100	37000	33000	31700	32000	31600	30500	27600	28000	26900	26300	28300	37000	36700	34700
Lead (Pb)	0.50	9.89	14.1	12.2	9.83	8.26	6.61	8.34	8.20	11.5	7.30	9.28	8.68	5.55	5.50	5.49
Lithium (Li)	5.0	10.5	10.2	11.5	11.4	11.4	10.5	11.3	5.2	5.9	5.1	6.1	5.4	32.1	33.9	30.0
Magnesium (Mg)	20	9240	9370	10100	10100	9100	9710	10300	7730	8380	8060	8190	8070	11600	12400	10500
Manganese (Mn)	1.0	668	599	669	663	657	668	1270	587	581	572	557	600	1200	1040	1400
Mercury (Hg)	0.0050	0.0611	0.0587	0.0496	0.0611	0.0515	0.0389	0.0641	0.0176	0.0151	0.0120	0.0126	0.0133	0.0750	0.0812	0.0784
Molybdenum (Mo)	0.50	8.34	3.51	8.49	12.6	3.79	4.22	5.87	1.78	1.63	1.55	1.73	1.83	1.65	1.48	1.76
Nickel (Ni)	0.50	13.4	15.4	15.3	17.1	17.3	15.7	33.3	13.6	13.8	12.9	13.9	13.8	99.4	98.6	91.3
Phosphorus (P)	50	930	1030	981	1050	1070	1100	1060	1360	1300	1220	1160	1420	824	658	744
Potassium (K)	100	1280	1170	880	980	1010	1100	760	2160	2200	1970	1880	2160	570	440	560
Selenium (Se)	0.20	1.96	4.42	2.97	2.40	1.98	1.78	1.39	1.37	1.50	1.20	1.38	1.27	0.57	0.50	0.58
Silver (Ag)	0.10	0.63	0.43	0.42	0.52	0.33	0.31	0.63	0.34	0.39	0.31	0.28	0.35	0.21	0.20	0.19
Sodium (Na)	100	130	110	<100	110	100	<100	<100	230	190	190	160	230	<100	<100	<100
Strontium (Sr)	0.50	53.5	42.6	57.7	47.8	42.5	39.5	68.3	67.0	70.4	63.2	66.1	72.9	21.1	16.1	20.3
Thallium (Tl)	0.050	0.080	0.089	0.074	0.084	0.072	0.099	0.146	0.112	0.112	0.105	0.096	0.123	0.073	0.071	0.081
Tin (Sn)	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	1.0	691	633	685	744	679	650	537	873	814	808	671	725	125	97.6	94.3
Uranium (U)	0.050	0.578	0.521	0.503	0.739	0.456	0.542	0.454	0.409	0.413	0.379	0.409	0.420	0.116	0.091	0.097
Vanadium (V)	0.20	57.5	61.3	62.4	65.2	60.2	66.1	62.0	56.3	57.5	54.3	52.7	54.1	42.7	41.0	38.0
Zinc (Zn)	1.0	114	111	127	114	129	127	125	89.0	89.1	79.9	85.2	93.0	109	103	104

All values in µg/g dry weight, unless otherwise noted

Appendix 15-J1. Sediment Quality Data for Streams in the KSM Project Area, November/December 2012

Sample ID	DETECTION LIMITS ALL SAMPLES	SNO2 REP1	SNO2 REP2	SNO2 REP3	STE 3 REP 1	STE 3 REP 2	STE 3 REP 3	STE2 REP1	STE2 REP2	STE2 REP3	TEC1 REP1	TEC1 REP2	TEC1 REP3	TEC1B REP1	TEC1B REP2	TEC1B REP3
		03-DEC-12 L1246043-44	03-DEC-12 L1246043-45	03-DEC-12 L1246043-46	28-NOV-12 L1244025-8	28-NOV-12 L1244025-15	28-NOV-12 L1244025-16	26-NOV-12 L1243503-7	26-NOV-12 L1243503-8	26-NOV-12 L1243503-9	01-DEC-12 L1246043-36	01-DEC-12 L1246043-37	03-DEC-12 L1246043-38	03-DEC-12 L1246043-31	03-DEC-12 L1246043-32	03-DEC-12 L1246043-33
Particle Size																
% Gravel (>2 mm)	0.10	46.7	39.6	53.5	11.0	26.9	22.9	78.9	39.6	30.4	6.32	6.22	9.59	21.3	8.35	7.18
% Sand (2.0mm - 0.063 mm)	0.10	51.4	59.4	44.7	82.4	69.1	70.9	20.8	59.1	61.4	90.8	88.9	85.7	70.1	88.0	91.1
% Silt (0.063 mm - 4µm)	0.10	1.63	0.91	1.57	4.73	3.07	4.66	0.24	0.98	6.23	2.49	3.81	4.09	7.74	3.17	1.60
% Clay (<4 µm)	0.10	0.26	0.14	0.19	1.85	0.95	1.56	<0.10	0.33	2.00	0.42	1.04	0.65	0.80	0.47	0.10
Physical Tests																
Moisture (%)	0.25	17.6	20.9	16.5	13.8	14.3	24.0	15.7	18.2	13.1	25.8	20.7	22.2	31.6	21.7	19.7
pH (1:2 soil:water)	0.10	7.15	7.19	7.19	7.29	7.53	7.46	7.22	7.19	7.13	7.34	7.07	7.23	7.49	7.46	7.59
Nutrients																
Total Nitrogen by LECO (%)	0.020	0.073	0.064	0.066	0.097	0.089	0.088	0.083	0.083	0.084	0.067	0.063	0.064	0.073	0.070	0.065
Available Phosphate-P	2.0	5.6	3.2	3.6	3.4	2.7	2.4	2.3	2.7	3.2	3.1	3.8	2.7	4.4	4.1	3.4
Cyanides																
Cyanide, Total	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Organic / Inorganic Carbon																
CaCO3 Equivalent (%)	0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Inorganic Carbon (%)	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Carbon by Combustion (%)	0.1	0.5	0.4	0.4	0.8	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.5
Total Organic Carbon (%)	0.10	0.48	0.43	0.43	0.79	0.62	0.67	0.58	0.59	0.59	0.47	0.47	0.47	0.64	0.53	0.48
Metals																
Aluminum (Al)	50	18400	17900	16300	20200	21000	21200	22300	21800	21300	20600	19500	19800	20700	19900	21300
Antimony (Sb)	0.10	0.56	0.36	0.48	0.42	0.51	0.54	0.34	0.35	0.32	0.26	0.26	0.30	0.36	0.31	0.41
Arsenic (As)	0.050	8.01	7.35	7.62	8.29	8.83	10.1	8.01	8.28	7.96	6.49	5.26	6.08	6.54	6.34	7.66
Barium (Ba)	0.50	54.6	51.1	51.6	65.4	78.8	81.5	76.9	86.0	82.0	55.5	54.7	52.4	104	91.1	99.1
Beryllium (Be)	0.20	0.42	0.34	0.37	0.42	0.51	0.48	0.50	0.51	0.48	0.39	0.36	0.40	0.50	0.40	0.49
Bismuth (Bi)	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	0.050	0.152	0.172	0.168	0.250	0.259	0.264	0.218	0.218	0.223	0.144	0.116	0.153	0.221	0.192	0.209
Calcium (Ca)	50	3580	2820	2650	2750	2940	3170	2360	2290	2170	4510	4260	4890	4440	3590	4480
Chromium (Cr)	0.50	95.9	88.1	82.1	103	112	112	108	104	102	104	92.2	98.0	96.1	98.9	91.2
Cobalt (Co)	0.10	11.9	11.3	11.9	13.2	13.3	13.3	12.7	13.7	12.6	12.0	11.2	11.8	14.1	13.4	13.4
Copper (Cu)	0.50	35.6	30.5	30.0	40.6	44.0	40.5	39.3	37.1	40.1	21.3	19.4	22.7	30.9	28.9	31.1
Iron (Fe)	50	36000	33700	31600	36400	36500	36900	37100	39000	37900	33300	30200	30500	34400	34700	35500
Lead (Pb)	0.50	5.19	4.16	4.80	5.87	6.38	6.60	6.25	5.87	5.44	4.31	4.10	4.26	4.68	4.11	4.88
Lithium (Li)	5.0	30.7	26.6	26.6	35.8	37.2	37.0	37.6	39.1	36.6	28.6	26.9	28.4	28.5	27.9	30.4
Magnesium (Mg)	20	14400	13900	12700	16300	17400	17300	16200	16400	16400	16200	14600	14900	14500	15800	15600
Manganese (Mn)	1.0	535	571	629	463	433	452	539	695	517	584	538	532	546	509	464
Mercury (Hg)	0.0050	0.0600	0.0556	0.0534	0.0583	0.0594	0.0629	0.0553	0.0579	0.0575	0.0314	0.0324	0.0344	0.0584	0.0482	0.0533
Molybdenum (Mo)	0.50	1.24	0.95	1.07	1.15	1.37	1.44	1.26	1.32	1.14	0.76	0.70	0.75	0.86	0.71	0.89
Nickel (Ni)	0.50	101	99.4	98.4	124	127	129	118	120	118	96.4	87.8	92.4	111	115	115
Phosphorus (P)	50	781	692	679	957	847	844	868	725	837	668	669	699	702	715	687
Potassium (K)	100	650	560	520	780	1100	1250	1090	1130	1140	550	580	630	1000	870	940
Selenium (Se)	0.20	0.54	0.45	0.44	0.59	0.62	0.56	0.50	0.49	0.48	0.36	0.29	0.39	0.37	0.31	0.33
Silver (Ag)	0.10	0.14	0.12	0.11	0.16	0.20	0.21	0.16	0.15	0.15	<0.10	<0.10	0.11	0.13	<0.10	0.13
Sodium (Na)	100	220	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	120	240	150	240
Strontium (Sr)	0.50	24.0	18.1	17.3	33.9	34.5	34.6	25.0	25.1	23.9	17.7	17.6	19.5	31.6	23.6	32.4
Thallium (Tl)	0.050	<0.050	<0.050	<0.050	0.053	0.070	0.067	0.059	0.058	0.051	<0.050	<0.050	<0.050	0.061	<0.050	0.058
Tin (Sn)	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	1.0	307	263	214	47.1	54.3	72.6	88.5	75.5	70.6	664	701	704	531	494	434
Uranium (U)	0.050	0.147	0.123	0.130	0.141	0.153	0.149	0.157	0.155	0.145	0.197	0.192	0.192	0.187	0.164	0.172
Vanadium (V)	0.20	48.3	46.6	43.1	50.7	54.2	57.6	56.6	55.4	56.3	53.7	51.0	51.2	53.0	52.3	54.5
Zinc (Zn)	1.0	90.0	86.7	85.8	101	107	105	101	105	108	72.0	66.7	70.6	90.7	87.0	88.8

All values in µg/g dry weight, unless otherwise noted

Appendix 15-J1. Sediment Quality Data for Streams in the KSM Project Area, November/December 2012

Sample ID	DETECTION LIMITS ALL SAMPLES	TEC1B REP4	TEC1B REP5	TEC2 REP1	TEC2 REP2	TEC2 REP3	NTR2 REP1	NTR2 REP2	NTR2 REP3	TRC 1B REP 1	TRC 1B REP 2	TRC 1B REP 3	TRC 2 REP 1	TRC 2 REP 2	TRC 2 REP 3	TRC 3 REP 1
		03-DEC-12 L1246043-34	03-DEC-12 L1246043-35	03-DEC-12 L1246043-40	03-DEC-12 L1246043-41	03-DEC-12 L1246043-42	26-NOV-12 L1243503-13	26-NOV-12 L1243503-14	26-NOV-12 L1243503-15	28-NOV-12 L1244025-4	28-NOV-12 L1244025-17	28-NOV-12 L1244025-18	28-NOV-12 L1244025-6	28-NOV-12 L1244025-13	28-NOV-12 L1244025-14	28-NOV-12 L1244025-2
Particle Size																
% Gravel (>2 mm)	0.10	26.5	8.08	1.17	13.4	26.7	20.0	20.6	66.0	7.22	0.33	12.4	3.92	15.1	4.25	13.0
% Sand (2.0mm - 0.063 mm)	0.10	68.3	88.1	93.5	82.0	72.1	71.3	72.7	33.6	87.5	94.9	86.3	93.8	79.2	89.3	82.8
% Silt (0.063 mm - 4µm)	0.10	4.78	3.52	4.64	4.28	0.99	6.60	5.25	0.26	4.18	3.97	0.67	1.51	4.56	5.18	3.32
% Clay (<4 µm)	0.10	0.40	0.27	0.70	0.41	0.21	2.07	1.44	<0.10	1.14	0.85	0.69	0.82	1.17	1.23	0.89
Physical Tests																
Moisture (%)	0.25	19.2	27.5	27.3	13.5	16.8	20.6	15.7	19.6	17.9	26.9	24.4	18.5	14.7	18.4	16.2
pH (1:2 soil:water)	0.10	7.67	7.74	7.46	7.46	7.28	7.60	7.55	7.51	8.02	8.16	8.14	7.87	7.98	8.00	7.86
Nutrients																
Total Nitrogen by LECO (%)	0.020	0.077	0.065	0.067	0.066	0.071	0.092	0.090	0.095	0.060	0.054	0.056	0.055	0.058	0.053	0.060
Available Phosphate-P	2.0	5.1	4.3	3.9	4.0	2.3	2.8	3.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.2	<2.0	<2.0
Cyanides																
Cyanide, Total	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.092	<0.050
Organic / Inorganic Carbon																
CaCO3 Equivalent (%)	0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	1.46	2.53	2.30	2.18	2.48	2.39	2.34	<0.80
Inorganic Carbon (%)	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	0.30	0.28	0.26	0.30	0.29	0.28	<0.10
Total Carbon by Combustion (%)	0.1	0.7	0.5	0.5	0.5	0.5	0.7	0.6	0.6	0.8	0.7	0.8	0.7	0.8	0.8	0.6
Total Organic Carbon (%)	0.10	0.68	0.47	0.49	0.49	0.50	0.68	0.61	0.46	0.52	0.46	0.52	0.44	0.49	0.47	0.55
Metals																
Aluminum (Al)	50	19900	19800	20600	20100	20600	21400	21400	22900	15000	16200	16400	14200	16100	15100	16900
Antimony (Sb)	0.10	0.30	0.31	0.35	0.32	0.36	0.37	0.44	0.34	2.46	2.16	1.74	1.49	3.13	2.46	1.27
Arsenic (As)	0.050	6.63	5.97	6.85	7.06	7.13	8.06	8.61	8.14	15.3	17.5	18.8	23.0	21.5	22.7	12.1
Barium (Ba)	0.50	95.7	87.5	115	94.1	89.2	89.7	129	111	69.7	85.1	80.6	55.1	74.4	63.9	61.7
Beryllium (Be)	0.20	0.47	0.42	0.47	0.48	0.45	0.57	0.60	0.58	0.36	0.43	0.41	0.30	0.37	0.33	0.36
Bismuth (Bi)	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.23	<0.20
Cadmium (Cd)	0.050	0.226	0.197	0.219	0.222	0.191	0.216	0.252	0.227	0.926	1.14	0.695	0.748	0.844	1.18	0.555
Calcium (Ca)	50	4910	4300	3980	4250	3830	2710	2630	2930	14100	13400	13500	13200	12000	13200	5710
Chromium (Cr)	0.50	90.2	88.4	98.1	93.3	93.8	95.1	90.7	100	31.8	36.0	35.5	30.2	32.7	31.8	39.6
Cobalt (Co)	0.10	13.5	13.2	14.2	12.6	12.2	12.6	13.2	12.3	11.5	12.6	13.2	10.2	11.7	12.3	12.5
Copper (Cu)	0.50	33.9	28.9	32.5	31.7	35.6	47.7	43.3	48.6	39.2	41.3	34.7	28.4	35.2	39.5	30.7
Iron (Fe)	50	34200	33700	34400	34500	35100	38600	36300	39000	35300	37400	37700	34500	36600	38300	37400
Lead (Pb)	0.50	4.54	4.32	4.99	4.82	5.17	7.06	6.35	6.34	9.53	10.2	10.8	7.17	9.67	12.3	7.75
Lithium (Li)	5.0	27.3	28.5	30.0	30.1	29.3	40.2	37.3	39.9	24.4	28.2	27.6	20.8	26.5	24.0	31.0
Magnesium (Mg)	20	14900	15000	15500	15800	16300	16800	15900	17200	11100	11600	11900	11200	11700	11300	12200
Manganese (Mn)	1.0	550	495	509	483	407	466	568	508	854	807	957	754	746	727	762
Mercury (Hg)	0.0050	0.0519	0.0466	0.0475	0.0483	0.0554	0.0626	0.0545	0.0575	0.0973	0.137	0.0966	0.0880	0.107	0.115	0.0769
Molybdenum (Mo)	0.50	1.07	0.72	0.85	0.88	0.93	1.26	1.37	1.25	2.04	2.43	2.21	1.95	2.23	2.53	1.57
Nickel (Ni)	0.50	110	111	118	116	117	110	110	120	42.7	48.8	49.1	40.8	44.0	44.7	55.9
Phosphorus (P)	50	758	728	724	789	735	870	778	820	964	1030	1050	1290	934	1050	969
Potassium (K)	100	910	690	1100	1010	960	1000	1490	1430	440	560	540	360	490	390	430
Selenium (Se)	0.20	0.37	0.31	0.40	0.37	0.46	0.53	0.53	0.56	1.17	1.23	1.25	1.22	1.11	1.51	0.70
Silver (Ag)	0.10	0.12	0.12	0.13	0.14	0.16	0.19	0.19	0.19	0.25	0.28	0.27	0.19	0.25	0.32	0.22
Sodium (Na)	100	360	180	240	270	250	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Strontium (Sr)	0.50	35.6	30.8	31.5	35.4	31.1	30.5	29.6	30.3	61.2	64.3	62.0	62.2	67.2	62.2	31.8
Thallium (Tl)	0.050	0.057	0.050	0.057	0.058	0.053	0.056	0.084	0.072	0.151	0.174	0.215	0.125	0.185	0.172	0.095
Tin (Sn)	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	1.0	458	368	389	341	282	14.0	20.8	16.3	531	625	622	373	557	425	408
Uranium (U)	0.050	0.193	0.153	0.171	0.168	0.175	0.160	0.175	0.163	0.265	0.293	0.307	0.603	0.278	0.277	0.215
Vanadium (V)	0.20	51.7	49.8	54.3	52.8	52.5	57.4	57.5	60.5	45.8	51.2	50.9	43.4	49.8	46.3	48.7
Zinc (Zn)	1.0	86.8	84.6	90.0	88.2	89.8	112	108	118	113	142	123	104	125	142	115

All values in µg/g dry weight, unless otherwise noted

Appendix 15-J1. Sediment Quality Data for Streams in the KSM Project Area, November/December 2012

Sample ID	DETECTION LIMITS ALL SAMPLES	TRC 3 REP 2	TRC 3 REP 3	TRC1 REP1	TRC1 REP2	TRC1 REP3	CC1 REP1	CC1 REP2	CC1 REP3	ECM8 REP1	ECM8 REP2	ECM8 REP3	ECM8 REP4	ECM8 REP5	ECM9 REP1	ECM9 REP2
		28-NOV-12 L1244025-11	28-NOV-12 L1244025-12	26-NOV-12 L1243503-10	26-NOV-12 L1243503-11	26-NOV-12 L1243503-12	03-DEC-12 L1246043-27	03-DEC-12 L1246043-28	03-DEC-12 L1246043-29	29-NOV-12 L1244734-7	29-NOV-12 L1244734-8	29-NOV-12 L1244734-9	29-NOV-12 L1244734-10	29-NOV-12 L1244734-11	29-NOV-12 L1244734-12	29-NOV-12 L1244734-13
Particle Size																
% Gravel (>2 mm)	0.10	18.7	17.9	50.3	38.8	46.5	42.7	34.8	51.6	28.3	21.2	46.2	14.6	29.4	53.8	16.9
% Sand (2.0mm - 0.063 mm)	0.10	76.5	79.2	49.1	60.2	52.6	56.3	63.1	47.2	68.2	76.9	52.7	84.2	69.2	45.0	81.5
% Silt (0.063 mm - 4µm)	0.10	3.58	2.10	0.34	0.67	0.73	0.89	1.82	1.05	2.83	1.57	0.80	1.06	1.23	0.95	1.39
% Clay (<4 µm)	0.10	1.25	0.87	0.27	0.31	0.25	0.20	0.29	0.18	0.65	0.31	0.21	0.23	0.23	0.17	0.17
Physical Tests																
Moisture (%)	0.25	17.7	15.3	16.4	16.4	16.4	30.2	31.1	32.8	21.1	16.5	17.6	27.4	18.3	18.7	23.5
pH (1:2 soil:water)	0.10	7.80	7.83	8.18	8.17	8.28	7.43	7.29	7.49	8.27	8.39	8.30	8.32	8.38	8.46	8.54
Nutrients																
Total Nitrogen by LECO (%)	0.020	0.066	0.062	0.045	0.044	0.043	0.155	0.156	0.152	0.055	0.048	0.047	0.053	0.044	0.057	0.049
Available Phosphate-P	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.6	3.7	4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cyanides																
Cyanide, Total	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Organic / Inorganic Carbon																
CaCO3 Equivalent (%)	0.80	0.98	<0.80	4.12	3.74	3.61	<0.80	<0.80	1.15	5.42	7.09	6.36	5.99	6.38	3.86	3.33
Inorganic Carbon (%)	0.10	0.12	<0.10	0.49	0.45	0.43	<0.10	<0.10	0.14	0.65	0.85	0.76	0.72	0.77	0.46	0.40
Total Carbon by Combustion (%)	0.1	0.6	0.6	0.9	0.8	0.8	1.5	1.6	1.6	1.1	1.2	1.1	1.2	1.2	1.0	0.9
Total Organic Carbon (%)	0.10	0.50	0.57	0.37	0.37	0.38	1.48	1.62	1.41	0.42	0.36	0.38	0.45	0.42	0.57	0.47
Metals																
Aluminum (Al)	50	17100	17700	13200	13300	12900	11600	11600	12100	16400	16800	16100	16000	16300	15800	16800
Antimony (Sb)	0.10	1.23	1.61	2.51	2.63	2.66	6.00	5.76	5.70	2.20	5.42	1.78	1.77	4.88	2.13	1.83
Arsenic (As)	0.050	11.3	14.6	59.9	20.7	41.8	33.9	34.6	28.7	18.4	24.9	20.3	13.0	26.3	12.2	19.7
Barium (Ba)	0.50	57.9	77.4	70.9	57.5	46.0	60.5	82.8	95.1	82.3	61.3	59.3	85.3	57.0	73.2	67.8
Beryllium (Be)	0.20	0.34	0.41	0.37	0.34	0.37	0.71	0.66	0.66	0.54	0.66	0.48	0.50	0.47	0.54	0.55
Bismuth (Bi)	0.20	<0.20	<0.20	0.35	<0.20	0.31	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	0.050	0.549	0.672	1.26	1.17	1.09	11.2	15.6	11.0	0.419	0.371	0.451	0.371	0.449	0.580	0.377
Calcium (Ca)	50	6760	7910	17800	13600	14900	3650	3870	3610	22700	32000	26700	24100	30200	20500	18000
Chromium (Cr)	0.50	40.2	42.2	22.7	22.3	24.1	26.7	26.7	26.7	45.1	45.5	49.1	42.3	41.3	43.1	40.1
Cobalt (Co)	0.10	11.8	12.7	13.5	11.8	14.8	10.3	12.8	9.99	12.7	12.9	12.7	13.8	13.7	12.2	12.5
Copper (Cu)	0.50	32.0	33.2	40.9	33.4	33.6	76.5	114	72.3	56.5	55.0	74.9	50.2	61.1	49.3	52.4
Iron (Fe)	50	38600	39300	39600	33900	39600	41800	47100	42900	38700	40500	39500	36900	39300	36100	38300
Lead (Pb)	0.50	7.83	8.69	12.6	10.4	13.5	11.7	10.7	12.7	11.3	12.3	15.3	8.76	13.4	9.36	8.83
Lithium (Li)	5.0	30.9	31.7	19.1	19.5	20.0	17.0	16.1	18.4	22.7	19.5	20.3	20.3	19.4	21.5	21.8
Magnesium (Mg)	20	13000	12000	9820	10000	10100	5390	5550	5850	14100	15900	14600	14600	15300	13600	13800
Manganese (Mn)	1.0	801	800	768	671	736	360	594	460	770	898	798	791	850	805	691
Mercury (Hg)	0.0050	0.0690	0.116	1.38	0.202	0.118	0.116	0.133	0.109	0.109	0.331	0.0835	0.118	0.269	0.110	0.112
Molybdenum (Mo)	0.50	1.41	1.67	2.97	2.39	2.85	10.7	13.0	13.0	1.18	1.49	1.96	1.09	1.24	1.47	1.18
Nickel (Ni)	0.50	55.1	55.7	33.9	33.8	35.6	72.2	77.9	73.4	50.1	41.6	46.1	44.1	43.5	48.8	44.6
Phosphorus (P)	50	1050	1080	1020	1000	985	1350	1080	993	1140	1200	1220	1280	1400	1130	1330
Potassium (K)	100	360	530	530	390	380	600	740	780	720	680	680	630	570	690	630
Selenium (Se)	0.20	0.71	0.89	2.68	1.20	2.08	11.8	13.3	11.9	1.66	1.41	1.66	1.32	1.51	1.03	0.78
Silver (Ag)	0.10	0.16	0.20	0.51	0.86	0.43	1.19	1.22	1.16	0.26	0.24	0.34	0.23	0.95	0.22	0.19
Sodium (Na)	100	<100	<100	<100	100	<100	<100	<100	<100	120	130	120	120	140	140	110
Strontium (Sr)	0.50	44.1	41.0	71.7	55.0	64.0	40.8	43.9	42.3	104	137	124	104	130	96.1	80.8
Thallium (Tl)	0.050	0.088	0.116	0.211	0.241	0.246	0.511	0.536	0.612	0.105	0.155	0.130	0.107	0.141	0.119	0.109
Tin (Sn)	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	1.0	401	684	553	419	314	5.3	9.5	7.2	493	578	475	391	352	380	392
Uranium (U)	0.050	0.229	0.283	0.315	0.326	0.295	0.549	0.557	0.545	0.254	0.271	0.257	0.249	0.278	0.252	0.264
Vanadium (V)	0.20	49.5	53.9	49.3	45.2	46.1	45.5	44.8	48.7	89.1	99.5	94.3	90.4	89.7	80.5	89.9
Zinc (Zn)	1.0	108	126	182	147	136	921	1150	786	106	93.4	116	90.6	104	112	95.5

All values in µg/g dry weight, unless otherwise noted

Appendix 15-J1. Sediment Quality Data for Streams in the KSM Project Area, November/December 2012

Sample ID	DETECTION LIMITS ALL SAMPLES	ECM9 REP3	UR1 REP1	UR1 REP2	UR1 REP3	UR1A REP1	UR1A REP2	UR1A REP3	UR1B REP1	UR1B REP2	UR1B REP3	UR2 REP1	UR2 REP2	UR2 REP3	UR2 REP4	UR2 REP5
		29-NOV-12 L1244734-14	29-NOV-12 L1244734-21	29-NOV-12 L1244734-22	29-NOV-12 L1244734-23	30-NOV-12 L1244734-35	30-NOV-12 L1244734-36	30-NOV-12 L1244734-37	29-NOV-12 L1244734-15	29-NOV-12 L1244734-16	29-NOV-12 L1244734-17	30-NOV-12 L1244734-30	30-NOV-12 L1244734-31	30-NOV-12 L1244734-32	30-NOV-12 L1244734-33	30-NOV-12 L1244734-34
Particle Size																
% Gravel (>2 mm)	0.10	51.3	30.2	45.8	47.2	0.32	24.4	50.1	5.93	0.31	4.47	53.6	<0.10	25.7	38.9	9.66
% Sand (2.0mm - 0.063 mm)	0.10	48.0	67.8	51.8	50.0	87.0	73.7	48.9	90.2	98.0	91.0	45.8	79.5	66.6	59.5	81.3
% Silt (0.063 mm - 4µm)	0.10	0.60	1.63	2.15	2.51	11.9	1.65	0.86	3.50	1.56	4.24	0.58	20.0	7.48	1.53	8.69
% Clay (<4 µm)	0.10	0.10	0.32	0.25	0.29	0.85	0.24	0.19	0.33	0.16	0.30	<0.10	0.47	0.17	0.10	0.34
Physical Tests																
Moisture (%)	0.25	17.6	11.2	16.9	15.7	25.5	19.5	14.7	19.5	28.3	25.9	11.2	27.8	19.4	11.2	19.7
pH (1:2 soil:water)	0.10	8.52	8.37	8.41	8.48	8.32	8.53	8.53	8.29	8.31	8.36	8.40	7.79	7.71	7.77	8.05
Nutrients																
Total Nitrogen by LECO (%)	0.020	0.052	0.046	0.048	0.044	0.054	0.055	0.057	0.035	0.041	0.041	0.029	0.038	0.031	0.026	0.028
Available Phosphate-P	2.0	<2.0	3.2	4.3	3.2	<2.0	<2.0	<2.0	4.2	3.3	2.8	2.1	<2.0	2.7	<2.0	2.2
Cyanides																
Cyanide, Total	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Organic / Inorganic Carbon																
CaCO3 Equivalent (%)	0.80	3.43	2.88	2.51	2.38	3.85	3.12	3.01	1.23	1.40	1.67	1.00	0.81	<0.80	0.91	0.82
Inorganic Carbon (%)	0.10	0.41	0.35	0.30	0.29	0.46	0.37	0.36	0.15	0.17	0.20	0.12	<0.10	<0.10	0.11	<0.10
Total Carbon by Combustion (%)	0.1	0.9	0.6	0.7	0.6	0.9	0.8	0.8	0.4	0.4	0.5	0.3	0.2	0.2	0.2	0.2
Total Organic Carbon (%)	0.10	0.49	0.27	0.36	0.31	0.47	0.45	0.46	0.23	0.22	0.26	0.13	0.25	0.19	<0.10	0.19
Metals																
Aluminum (Al)	50	18000	15600	15100	14000	16100	16500	17600	11500	12300	12200	13000	14000	12500	11900	13000
Antimony (Sb)	0.10	1.16	1.84	2.41	1.80	2.37	1.89	2.99	0.87	1.02	0.99	0.32	1.03	0.82	0.55	0.97
Arsenic (As)	0.050	9.85	18.6	15.2	13.0	17.6	12.2	12.5	7.00	7.15	8.04	4.05	11.9	8.87	6.30	9.92
Barium (Ba)	0.50	72.6	76.0	74.0	75.3	96.9	77.0	80.8	71.5	87.8	86.1	56.0	127	89.0	67.8	97.4
Beryllium (Be)	0.20	0.58	0.47	0.48	0.39	0.55	0.59	0.58	0.25	0.27	0.32	0.23	0.32	0.27	0.24	0.30
Bismuth (Bi)	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	0.050	0.433	0.923	1.20	0.841	0.584	0.475	0.475	0.623	0.617	0.571	0.348	0.575	0.361	0.250	0.311
Calcium (Ca)	50	18400	15200	13400	11900	17000	16800	16100	8130	8310	9030	6620	6660	5680	7030	6570
Chromium (Cr)	0.50	48.8	36.8	36.2	31.4	45.5	52.4	47.5	23.2	26.7	27.2	26.1	30.8	27.9	23.1	28.3
Cobalt (Co)	0.10	12.4	12.1	13.3	11.9	12.7	11.9	11.9	9.23	8.89	9.28	10.4	12.3	11.8	10.1	11.2
Copper (Cu)	0.50	50.9	75.9	92.4	95.8	51.4	47.5	55.0	60.0	54.1	49.9	31.9	57.2	48.1	43.2	45.3
Iron (Fe)	50	37900	37200	37400	34000	36000	36300	37800	24100	25000	24800	26800	32900	32400	28500	31700
Lead (Pb)	0.50	8.10	10.1	10.3	9.53	12.4	10.8	9.50	5.94	7.62	6.75	4.28	9.24	7.31	6.30	7.18
Lithium (Li)	5.0	24.0	18.5	18.0	16.3	21.2	22.5	23.4	10.8	12.5	13.2	8.0	10.8	9.4	8.3	9.7
Magnesium (Mg)	20	15300	13400	12300	11200	13300	13800	14500	8860	9450	9430	10600	10700	10000	9860	10400
Manganese (Mn)	1.0	728	771	735	653	755	773	738	479	504	513	468	459	465	461	478
Mercury (Hg)	0.0050	0.0658	0.0815	0.0731	0.0678	0.392	0.0936	0.271	0.0308	0.0360	0.0414	0.0148	0.0493	0.0323	0.0130	0.0256
Molybdenum (Mo)	0.50	1.04	1.66	1.69	4.26	1.45	1.29	1.45	1.64	1.88	1.50	0.73	2.15	1.08	0.96	1.35
Nickel (Ni)	0.50	52.0	36.0	37.7	30.1	50.6	50.8	51.4	20.5	24.6	27.3	21.1	25.5	22.3	19.2	23.0
Phosphorus (P)	50	1200	1270	1190	1140	1110	1190	1190	853	864	860	955	1230	1160	938	1090
Potassium (K)	100	680	870	770	750	850	840	810	870	1110	1000	730	1210	980	920	1060
Selenium (Se)	0.20	0.64	1.58	2.12	1.29	1.01	0.73	0.73	0.53	0.49	0.57	0.29	0.89	0.75	0.38	0.64
Silver (Ag)	0.10	0.19	0.26	0.46	0.34	0.48	0.20	0.43	0.15	0.15	0.17	<0.10	0.24	0.27	0.12	0.18
Sodium (Na)	100	100	130	140	140	200	160	150	180	180	170	390	620	680	720	630
Strontium (Sr)	0.50	81.2	73.4	60.3	52.6	83.3	79.8	80.0	42.2	47.8	52.1	32.6	42.6	35.7	38.3	41.6
Thallium (Tl)	0.050	0.095	0.109	0.100	0.081	0.130	0.123	0.109	0.064	0.080	0.088	<0.050	0.087	0.066	<0.050	0.077
Tin (Sn)	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	1.0	443	560	535	507	539	524	612	660	682	558	808	1120	926	958	1100
Uranium (U)	0.050	0.264	0.313	0.319	0.485	0.283	0.278	0.286	0.510	0.368	0.362	0.312	0.577	0.608	0.419	0.932
Vanadium (V)	0.20	93.3	83.1	78.7	75.5	81.4	87.8	93.2	58.2	57.7	54.8	62.9	73.9	72.9	67.7	73.5
Zinc (Zn)	1.0	105	122	140	110	123	102	105	85.2	88.9	87.8	63.9	90.8	71.7	58.3	68.9

All values in µg/g dry weight, unless otherwise noted

Appendix 15-J2. Summary of Historical Sediment Quality Data from the Sulphurets Project, August 8, 1988 (Environment Canada 1990)

Rescan Site Name Historic Site Name	UR1A 1		UR1 2		SC3 3	
	Mean	SD	Mean	SD	Mean	SD
Metal						
Aluminum (Al)	17,200	762	15,950	1,518	13,075	465
Arsenic (As)	20	2	47	18	58	15
Barium (Ba)	328	40	263	29	258	10
Beryllium (Be)	0.6	0	0.4	0	0.3	0
Calcium (Ca)	21,625	1,173	20,200	909	18,700	594
Cadmium (Cd)	0.9	0	1.8	0.6	1.7	0.5
Cobalt (Co)	<20	0	<20	0	<20	0
Chromium (Cr)	44.9	1.4	27.9	2.5	18.8	1.5
Copper (Cu)	71.8	2.3	168	18.4	203	31
Iron (Fe)	40,200	283	54,550	8,995	55,400	6,024
Mercury (Hg)	0.214	0.021	0.105	0.013	0.071	0.013
Magnesium (Mg)	13,325	330	11,125	981	8,903	428
Manganese (Mn)	827	33	790	80	672	48
Silver (Ag)	<2	0	<2	0	<2	0

All values in µg/g dry weight

SD = standard deviation of the mean