TABLE 10.2-2
Sediment, Data Summary and Descriptive Statistics for Inorganic Constituents, Mine Study Area, 2004-2007

Analyte	Frequency of Detection [a]	Percent Detected	Range of Detects (mg/kg) (Min - Max)	Range of Method Detection Limits (mg/kg) (Min - Max)	Range of Method Reporting Limits (mg/kg)	Mean [b] (mg/kg)	Median [b] (mg/kg)	Standard Deviation [b]	Coefficient of Variation
Trace Elements [c]									
Aluminum	197 / 197	100%	1820 - 25200	0.60 - 350	1.92 - 1200	11218	10600	4400	0.39
Antimony	169 / 197	86%	0.030 - 2.30	0.0021 - 0.46	0.093 - 2.90	0.23	0.17	0.24	1.04
Arsenic	190 / 197	96%	1.23 - 270	0.0081 - 4.56	0.19 - 14.7	14.2	9.57	23.0	1.62
Barium	197 / 197	100%	12.3 - 239	0.00061 - 1.63	0.19 - 5.20	74.7	66.0	39.4	0.53
Beryllium	189 / 197	96%	0.079 - 0.97	0.017 - 0.46	0.093 - 2.90	0.35	0.33	0.16	0.45
Bismuth	58 / 197	29%	0.063 - 3.10	0.058 - 21.0	0.19 - 400	1.11	0.089	6.39	5.74
Boron	81 / 196	41%	0.59 - 11.5	0.34 - 81.0	1.11 - 1000	6.78	2.25	20.7	3.05
Cadmium	153 / 197	78%	0.068 - 2.60	0.00048 - 0.91	0.19 - 2.94	0.26	0.19	0.25	0.96
Calcium	197 / 197	100%	583 - 23400	0.61 - 855	27.8 - 2730	3773	3260	2302	0.61
Chromium	197 / 197	100%	0.43 - 105	0.0079 - 1.77	0.19 - 5.88	15.4	14.4	9.26	0.60
Cobalt	196 / 197	99%	0.51 - 49.1	0.00080 - 2.21	0.19 - 7.35	7.86	6.62	6.10	0.78
Copper	197 / 197	100%	1.30 - 200	0.0010 - 3.12	0.19 - 10.4	27.3	12.9	32.7	1.20
Iron	197 / 197	100%	2670 - 83400	0.53 - 697	9.66 - 2250	21617	20400	11737	0.54
Lead	196 / 197	99%	1.46 - 40.3	0.0011 - 0.91	0.19 - 2.94	6.90	5.28	5.84	0.85
Magnesium	196 / 197	99%	410 - 7970	3.90 - 163	27.8 - 2200	3586	3680	1470	0.41
Manganese	197 / 197	100%	28.7 - 6970	0.0015 - 8.94	0.19 - 28.8	623	414	746	1.20
Mercury	113 / 197	57%	0.011 - 0.42	0.0073 - 0.18	0.016 - 0.59	0.040	0.022	0.055	1.36
Molybdenum	160 / 197	81%	0.28 - 22.0	0.00065 - 4.56	0.19 - 14.7	2.02	0.87	3.13	1.55
Nickel	197 / 197	100%	0.64 - 46.9	0.0019 - 0.91	0.19 - 2.94	8.95	8.31	4.98	0.56
Potassium	196 / 197	99%	75.0 - 1770	5.50 - 537	92.7 - 6700	545	534	220	0.40
Selenium	134 / 197	68%	0.018 - 13.1	0.012 - 2.21	0.46 - 7.35	1.15	0.53	1.77	1.54
Silver	68 / 197	35%	0.034 - 2.54	0.00047 - 0.46	0.093 - 2.90	0.12	0.060	0.24	2.00
Thallium	133 / 197	68%	0.0079 - 0.45	0.0013 - 0.091	0.019 - 2.90	0.11	0.076	0.16	1.48
Tin	46 / 197	23%	0.16 - 46.2	0.0025 - 5.37	0.47 - 17.3	1.21	0.52	3.42	2.82
Vanadium	197 / 197	100%	2.20 - 143	0.0046 - 16.3	0.19 - 52.0	44.9	40.5	22.3	0.50
Zinc	193 / 197	98%	9.90 - 313	0.0086 - 5.37	0.47 - 17.3	61.8	52.6	45.4	0.73

Anions and Cations[c]									
Ammonia (as nitrogen)	191 / 196	97%	3.90 - 1730	2.12 - 156	2.20 - 497	235	74.2	316	1.34
Chloride	145 / 184	79%	0.33 - 223	0.25 - 10.0	0.81 - 31.0	5.31	1.75	18.4	3.47
Cyanide, Total	124 / 194	64%	0.030 - 2.10	0.025 - 13.0	0.051 - 13.0	0.39	0.078	0.82	2.12
Cyanide, WAD	12 / 12	100%	0.13 - 0.96	0.029 - 0.030	0.059 - 0.061	0.54	0.48	0.29	0.54
Fluoride	113 / 183	62%	0.11 - 118	0.089 - 15.0	0.59 - 48.3	2.24	0.51	9.37	4.18
Sodium	168 / 197	85%	18.0 - 630	14.0 - 537	92.7 - 4000	194	186	109	0.56
Sulfate	179 / 184	97%	0.50 - 2600	0.25 - 15.0	0.81 - 48.3	51.8	9.16	204	3.93
Miscellaneous Parameters[c]									
Acid Volatile Sulfide (AVS)	9 / 34	26%	2.10 - 1010	0.40 - 6.00	1.70 - 29.0	46.0	0.35	178	3.87

Notes:

a. Number of samples with detectable concentrations / total number of samples analyzed.

b. When calculating the mean, median, and standard deviation, non-detect results were included as one-half the method detection limit. Non-detect results assigned a "U" or "UJ" qualifier were included as one-half the method reporting limit.

c. All data presented on a dry weight basis.

mg/kg = milligram per kilogram.

min = minimum.

max = maximum.

NA = not applicable; analyte not detected in any samples.

WAD = weak acid dissociable

TABLE 10.2-3

Sediment, Data Summary and Descriptive Statistics for SEMs and Organic Constituents, Mine Study Area, 2004-2007

Analyte	Frequency of Detection [a]	Percent Detected	Range of Detects (mg/kg) (Min - Max)	Range of Method Detection Limits (mg/kg) (Min - Max)	Range of Method Reporting Limits (mg/kg) (Min - Max)	Mean [b] (mg/kg)	Median [b] (mg/kg)	Standard Deviation [b]	Coefficient of Variation
Trace Elements [c]									
Cadmium SEM	18 / 34	53%	0.080 - 0.83	0.060 - 0.90	0.060 - 0.90	0.21	0.14	0.19	0.91
Copper SEM	34 / 34	100%	0.60 - 115	0.10 - 1.70	0.10 - 1.70	16.7	5.25	26.3	1.57
Lead SEM	24 / 34	71%	1.40 - 23.4	1.20 - 17.0	1.20 - 17.0	5.19	4.40	3.88	0.75
Mercury SEM	1 / 34	3%	0.020 - 0.020	0.010 - 0.14	0.010 - 0.14	0.018	0.010	0.016	0.87
Nickel SEM	33 / 34	97%	0.70 - 8.70	0.20 - 3.50	0.20 - 3.50	3.95	3.85	2.46	0.62
Zinc SEM	34 / 34	100%	6.10 - 123	0.10 - 1.70	0.10 - 1.70	37.1	33.3	24.5	0.66
Sulfur	34 / 34	100%	84.6 - 10000	2.80 - 11.8	37.6 - 157	1248	249	2129	1.71
Petroleum Hydrocarbons [c]									
Diesel-range Organics	1 / 1	100%	13.9 - 13.9	2.24 - 2.24	22.4 - 22.4	NA	NA	NA	NA
Gasoline-range Organics	0 / 1	0%	NA - NA	0.48 - 0.48	2.38 - 2.38	NA	NA	NA	NA
Residual-range Organics	1 / 1	100%	48.7 - 48.7	2.24 - 2.24	22.4 - 22.4	NA	NA	NA	NA
PAHs [c]									
1-Methylnaphthalene	0 / 1	0%	NA - NA	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
2-Methylnaphthalene	0 / 1	0%	NA - NA	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Acenaphthene	0 / 1	0%	NA - NA	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Acenaphthylene	1 / 1	100%	5.78 - 5.78	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Anthracene	1 / 1	100%	4.88 - 4.88	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Benzo(a)anthracene	1 / 1	100%	12.5 - 12.5	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Benzo(a)pyrene	1 / 1	100%	21.0 - 21.0	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Benzo(b)fluoranthene	1 / 1	100%	28.3 - 28.3	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Benzo(g,h,i)perylene	0 / 1	0%	NA - NA	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Benzo(k)fluoranthene	1 / 1	100%	9.14 - 9.14	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Chrysene	1 / 1	100%	15.1 - 15.1	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0 / 1	0%	NA - NA	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Fluoranthene	1 / 1	100%	19.4 - 19.4	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Fluorene	0 / 1	0%	NA - NA	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1 / 1	100%	13.0 - 13.0	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Naphthalene	1 / 1	100%	2.83 - 2.83	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Phenanthrene	1 / 1	100%	13.7 - 13.7	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA
Pyrene	1 / 1	100%	19.1 - 19.1	2.80 - 2.80	9.33 - 9.33	NA	NA	NA	NA

Chemical Properties [c]									
Total Organic Carbon [d]	34 / 34	100%	0.13% - 32.3%	0.021% - 0.34%	0.10% - 1.60%	6.05%	1.77%	8.41%	1.39%

Notes:

a. Number of samples with detectable concentrations / total number of samples analyzed.

b. When calculating the mean, median, and standard deviation, non-detect results were included as one-half the method detection limit. Non-detect results assigned a "U" or "UJ" qualifier were included as one-half the method reporting limit.

c. All data presented on a dry weight basis.

d. Values reported for total organic carbon are expressed as percentages, rather than in mg/kg.

mg/kg = milligram per kilogram.

min = minimum.

max = maximum.

NA = not applicable; analyte not detected in any samples.

PAHs = polynuclear aromatic hydrocarbons.

SEMs = simultaneously extractable metals